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alletin of Duke University 1975-1976

The Graduate School





Bulletin of Duke University

The Graduate School

1975-1976

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To the Prospective Graduate Student at Duke University

Several years ago a committee of distinguished scholars was appointed and asked to appraise the state of graduate education at Duke University and indicate guidelines for its future development. I would like to quote briefly from the preamble of their report:

The primary role of a university is to provide a focus for the growth of ideas. Since ideas grow in the minds of men, communication between scholars, between faculty and students-in short, teaching-is the first basic function of a university. But without great ideas to communicateideas old and new, traditional and nascent—teaching is an exercise in futility. Therefore, the second basic function of a university must be research, characterized by the spirit of free inquiry and the exploration, analysis, and synthesis of ideas. These two faces of a university are complementary.

Even in the undergraduate college or in the professional school, the student learns best when moved by a spirit indistinguishable from the mood of the scholar engaged in original research. The ideas taught are, in fact, new to the student and therefore fit material for his "original" research. But it is in the graduate school that teaching and research become truly inseparable.

To the student in search of a superior graduate education. Duke University has much to offer: excellent research facilities such as an outstanding library, a major computing center, modern laboratories—but above all, a highly productive graduate faculty dedicated to the twin functions of teaching and research. The following pages, and the information they contain, are addressed to the student seeking a soundly based graduate education.

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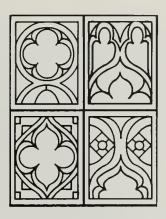
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Introduction

Writing in the 1920s, the philosopher and man of science Alfred North Whitehead defined the purpose of a university in these terms: "The justification of a university is that it preserves the connection between knowledge and the zest for life, by uniting the young and the old in the imaginative consideration of learning." If this is true of a university generally, it is true of a graduate school especially. Faculty members and graduate students work together in the imaginative recasting of ideas necessary for successful research and the development of human knowledge.

Ideally, a graduate school is a community of scholars engaged in imparting and extending the realm of man's knowledge in the arts and sciences. A select group of students is admitted each year to undergo the rigorous discipline of an advanced degree program, the successful among them to emerge as scholars of promise. To enter upon graduate education today is to accept a real challenge, but this decision should not be made casually. The work toward a doctorate requires several years of tireless effort and possible sacrifice, and the material rewards may be less certain than in some alternative endeavor. However, pursued with determination, graduate education can be the doorway to a stimulating, creative, and meaningful life.

The student who is contemplating this challenge may have many questions in mind; the following pages are an attempt to answer some of them.

The Decision to Go to Graduate School

The decision to work toward an advanced degree must be a personal commitment born of a willingness to devote oneself to many months or possibly years of academic discipline just at an age when one may be impatient for financial independence and freedom from academic discipline. Graduate education requires all the energy, enthusiasm, and self-discipline at one's disposal; to enter upon it half-heartedly is to invite discouragement or failure.

An equally important requisite for success in graduate study is the possession of a natural curiosity and the capacity for self-discipline. A good undergraduate record may or may not be adequate evidence of these characteristics. Many students with excellent undergraduate records have been unsuccessful in graduate study, because their undergraduate training stressed an ability to marshal facts and to articulate these facts rather than real understanding and analysis of material. On the other hand, many distinguished scholars had undistinguished

undergraduate records. In gaining admission to a graduate school, the undergraduate record is, of course, an important element, but usually some margin is left to allow for the student who develops a serious academic interest late in his undergraduate career. The student himself is often better able to judge whether his grade record is a true gauge of his ability.

There is no unerring way of knowing in advance whether one will be successful or happy in graduate school. It is quite likely, however, that if one has both the motivation and the ability and does not try it, there will be regrets in later years. Although the decision must be an individual choice, superior intellectual ability is a scarce human resource, and the encouragement and utilization of it is a matter of community as well as personal concern.

Choosing a Graduate School

Over two hundred and fifty universities today offer work leading to the Ph.D. degree. Among these are about sixty institutions which grant only two or three such degrees a year in all fields combined. At the other end of the scale are about fifty universities which account for nearly 70 percent of all doctorates granted in this country. Duke University is among these latter, as are most of the major institutions which offer programs ranging the breadth of academic disciplines. But even if one can narrow the field to about fifty major institutions, how does one select among these, and what factors should affect one's final choice? A few key factors are discussed briefly below.

Size. Size is not an infallible guide to the quality of a graduate school. There are a number of poor graduate schools of exceedingly large size and a number of extremely good small ones. However, it might be helpful simply to mention a few of the disadvantages of too many or too few students.

An extremely large graduate school—there are some which have between six and twelve thousand enrolled—is not the ideal of a small number of superior students working closely in intellectual pursuits with a few esteemed scholars. Classes of fifty to a hundred students, inaccessibility of senior faculty, shortage of library materials and facilities, only a nodding acquaintance with fellow students are

only a few of the possible drawbacks. An able student may develop well even in this atmosphere of mass production, but it is hardly the ideal.

An extremely small graduate school also has its disadvantages. Facilities are often limited, and the faculty is likely to be primarily composed of undergraduate instructors. A university must be willing to commit a significant portion of its resources to develop a graduate program of high quality, and this often is not the case in an extremely small graduate school.

More important than the size of the entire graduate school is the size of the particular departmental program in which a student is interested. An optimum doctoral program will have an enrollment of perhaps thirty to one hundred students, admitting fifteen to forty new students each year, and turning out perhaps three to ten Ph.D.s per year. This information is usually available in university catalogues or government publications on higher education.

Duke University is committed to programs of moderate size in which the interests of the student are important. Total enrollment in the Graduate School is about nineteen hundred students. Between four and five hundred new students are admitted each year from approximately four thousand applications. Only four departments have more than eighty students; seventeen departments have enrollments that fall within the optimum range suggested in the preceding paragraph.

Quality. Not only do universities differ considerably in their reputation for quality, but there are marked differences among departments within any university. Many excellent universities have a few weak departments in which a student would fare less well than he might in an excellent department in a less esteemed institution. Therefore, the student should not be guided solely by the reputation of a university as a whole, but should inquire more specifically about the area in which he wishes to specialize.

Since judging the quality of a graduate program is necessarily subjective, no two people are likely to be in complete agreement. The prospective student would do well to talk with his professors in his undergraduate college, particularly those who have themselves achieved some reputation in the world of scholarship. As







witnessed by their own continuing writing and research, they are more likely to have reliable information on the merits of various graduate programs. Similarly, the younger faculty member who is only four or five years out of graduate school may have more recent acquaintance with his and other schools.

Another guide may be occasional questionnaires asking other educators to rank various graduate departments.

Alone, none of these guides is adequate; however, in conjunction with individual advice and recommendations, they can serve as useful indicators. In summary, the best procedure is to take as many factors as possible into account, and then to apply to three or four of the schools high in consideration. (Applying to fifteen universities is a waste of an applicant's and the universities' time.) Write to the graduate school or to the departmental director of graduate studies if further information is desired; visit the university in person, if possible; and carefully weigh the advice of distinguished faculty members of one's undergraduate college.

Duration of Program

The length of time a graduate student spends in study toward an advanced

degree depends upon the requirements of his individual program, on his personal work habits, and on the environment of the graduate school and department in which he conducts his study.

The student's level of preparation before entering graduate school has a direct bearing on the speed with which he can progress toward a degree. A student who enters with proficiency in one or more foreign languages and a good foundation in his chosen field may well be able to finish within the minimum time limits. On the other hand, the student who is not as well prepared may find that one and a half to two years are the minimum for the A.M. degree, and four to five years for the Ph.D. degree (although wise use of the summers may reduce this time somewhat). The total time may also be lengthened if the student must work during part of his period of residence.

The attitude of the graduate school and its various departments will also affect the time needed to complete the degree. During the last decade the average time elapsing between entering graduate school and receiving the doctorate in American universities has been about ten years. A study of experience at Duke during the early 1950s indicated that the average doctorate in the humanities re-

quired a little over seven years, nearly six years in the social sciences, and slightly over four years in the sciences. Over the last few years, however, Duke University has been among the forerunners in reducing the time needed to obtain the Ph.D. without any sacrifice in quality. This effort has taken the form of trying to eliminate the unnecessary delays, particularly those due to financial burdens on the student. Duke ranks among the leading institutions in the country today in terms of financial aid per student from university sources. Moreover, much of this aid is in the form of fellowships and scholarships which do not require burdensome services in return. The large public institutions are often more restricted to awards which require substantial teaching, research, or other duties, thus reducing the speed with which a student can complete his resident course work. A student will be wise to inquire to what extent his progress toward a degree may be delayed by the work entailed in certain awards. If for example, an assistantship lengthens unduly the time necessary to obtain a degree, even a smaller fellowship may be preferable.

Another way in which Duke encourages deliberate speed toward fulfilling degree requirements is through its tuition charges. Many graduate schools charge tuition for three full years in a doctoral

program. In 1958 Duke adopted the policy of charging full tuition and fees only up to the time the doctoral student passes his preliminary examination. (This examination is taken upon completion of all course and language requirements. usually at the end of the second year, before the student is formally admitted to candidacy for the Ph.D.) After "prelims," tuition charges are substantially reduced. In making his choice of a graduate school, a prospective student should inquire about the fees for a full doctoral program, not merely the charges for the first year. The tuition and fee system at Duke has worked to encourage both the student and his department to arrange for preliminary examinations to be taken before the beginning of the third year. Some years ago fewer than half of the doctoral students at Duke took this examination before the beginning of the third year; today over 90 percent are doing so. This plan, aided by scholarship and fellowship aid, gives the graduate student at Duke a marked advantage over his counterparts in many other graduate schools in acquiring his degree in the minimum amount of time.

The duration of the graduate program, therefore, depends on many factors, but the policy of the Duke Graduate School is to keep the length of time a student is involved in obtaining an advanced degree at a minimum.

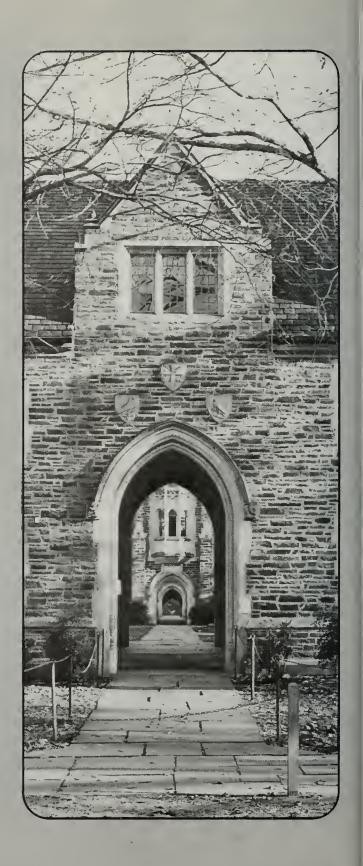


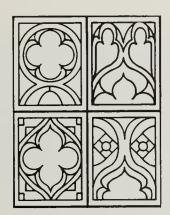












Duke University Graduate School

In surveying the progress made in the first seven years after the founding of Duke University, its first President, William Preston Few, wrote that he wanted "to see the Graduate School made strong because it will best and most quickly insure our attaining and maintaining a place of real leadership in the educational world." President Few believed that "more than anything else here our Graduate School will determine the sort of University we are to build and its standing in the educational world." These opinions have continued to prevail to the present day, with emphasis upon the interdependence of teaching and research as the necessary components of scholarship.

Over five hundred members of the graduate faculty teach the approximately six hundred courses and seminars offered in the Graduate School, and supervise thesis and dissertation research. Many of the major universities of the world have helped to train this faculty; approximately 90 percent of the graduate staff hold degrees from the forty-six institutions which make up the Association of Graduate Schools within the Association of American Universities. By place of birth they represent almost every state in the nation and almost two dozen foreign countries.

The nineteen hundred graduate students currently enrolled represent a simi-

lar diversity in background. Approximately 41 percent of the students recently completing doctoral degrees are from undergraduate colleges in the Southeast, 16 percent from the Middle Atlantic states, 12 percent from New England, 11 percent from the Central states, 7 percent from the Southwest, 2 percent from the Northwest, 1 percent from the Far West, and 10 percent from foreign countries.

The groundwork for learning may be laid in privacy—indeed a certain amount of private study and research is absolutely essential-but the vital stimulus to the learning process comes from one's contact with the minds of other people with similar or related interests. This is precisely why graduate schools are highly selective in their admissions policy, and it is one of the important reasons for their willingness to offer attractive fellowship awards to outstanding students. The superior student is a valuable catalyst both for his fellow students and for his faculty and is prized as such.

Faculty and students comprise the essential human factors in education, but their joint endeavor cannot prosper without adequate research and library facilities. Duke University is particularly fortunate in regard to research facilities, for the physics, botany, zoology, chemistry, psychology, sociology, engineering, and

biochemistry laboratories have been built entirely within recent years, and modernization and expansion have occurred in other scientific areas. The University has an excellent Computation Center on the campus and shares a computing facility with the University of North Carolina and North Carolina State University. The Triangle Universities Computation Center is among the largest research-oriented computer facilities in the world. The University has a fine research library: the twentieth largest university library in the nation, second in the South, and first in the Southeast. In number of volumes, breadth of coverage, serials, and documents, it is a much more adequate library than that available in many graduate schools with an enrollment two or three times as large. To the student in the arts, humanities, and social sciences, for whom the library is the bloodstream of scholarship, this is an immeasurable asset.

Among the many special features of the Graduate School a few important examples may be mentioned. For students in the biological and physical sciences, the facilities of the Duke Marine Laboratory at Beaufort, North Carolina, are available for course work and research. The Laboratory has research buildings, classrooms, motor vessels (including the 118-foot oceanographic ship, the RV Eastward), and living quarters, which make it an excellent research center in marine biology. Closer to home are the 8,000 acres of the Duke Forest, managed by the School of Forestry. ideal for research on timber growth, soils, and related topics. A Regional Nuclear Structure Laboratory is housed on the campus and serves the major universities in the area. A phytotron, adjacent to the Botany greenhouses, allows for the duplication of environmental conditions found anywhere in the world.

Duke is also fortunate in having excellent Medical, Law, Engineering, Forestry, and Divinity Schools on its main campus, thus making additional facilities available for course or research work. A three-term summer session and the availability of courses at the nearby University of North Carolina at Chapel Hill, North Carolina Central University in Durham, and North Carolina State University at Raleigh under a cooperative arrangement offer other opportunities to the graduate student.

No description of programs can begin

to give the prospective student the full flavor of graduate study in a particular institution. A visit to the universities in which one is particularly interested may be helpful in giving one a better picture. If this should be practical, the Duke Graduate School offers a warm invitation to prospective students to come to the campus during the year to discuss their possible application and admission. The visitor will find at Duke most of the facilities that one could hope for in the largest of institutions, and yet the University has been fortunate in avoiding many of the evils inevitable with mass education. Despite the total University enrollment of approximately 8,500, Duke has retained the sense of community that one usually associates with a smaller liberal arts college. And in an age when current architectural whim often adds yet one more variant style to an already assorted array of buildings Duke has built with foresight and design, a campus of unusual beauty. This. too, is an important part of education, creating an environment conducive to learning.



Special Programs

Special and cooperative programs at Duke include:

Center for the Study of Aging and Human Development Canadian Studies Program Center for Commonwealth Studies Program in Comparative Studies on Southern Asia

Cooperative Program in Teacher Education (Secondary M.A.T. Degree)
Cooperative Program (with the University of North Carolina at Chapel Hill) in Russian and East

European History

Center for Demographic Studies Duke Environmental Center University Program in Genetics Hispanic Studies Program Materials-Fields-Mechanics Research Program

Medical Scientist Training Program Medical Historian Training Program Program in Medieval and Renaissance Studies

Predoctoral Training Program in Sciences Related to the Nervous System

Oak Ridge Institute of Nuclear Studies

Organization for Tropical Studies Institute for Policy Sciences and Public Affairs

Social Systems Simulation Program Center for Southern Studies (including the Oral History Project)

Stochastic Systems Program (with the University of North Carolina at Chapel Hill)

Further information may be obtained by writing the individual program c/o Duke University, Durham, North Carolina 27706 or by writing the Graduate School Office.

General Regulations Governing Graduate Studies

The official detailed Bulletin of the Graduate School, published in February of each year, gives an account of regulations concerning graduate work at Duke University and a full description of course content. The following pages are a summary of these materials for 1975-1976 and should provide sufficient information for the prospective student. The Bulletin is normally mailed to each student who is admitted to the Graduate School in the late

spring of the year of matriculation so that he may plan his course program for the first year. Copies may be obtained in February, however, by writing to the Graduate School Office, Duke University, Durham, North Carolina 27706.

Admission

All applicants will be considered without regard to race, color, religion, sex, or national origin.

Admission is required of (1) all students who intend to pursue study toward a degree offered by the Graduate School, (2) all other students who desire credit for whatever purpose for graduate courses—except students who register as Special Students in the Summer Session. Students who have discontinued a program of study after earning a master's degree here must by letter request permission of the Dean to undertake a doc-

toral program.

A student seeking admission to the Graduate School of Duke University must have received an A.B. or B.S. degree (or the equivalent in the case of foreign students) from an accredited institution. The student's undergraduate program should be well rounded and of such quality as to give positive evidence of capacity for graduate study. Ordinarily the student should have majored in the area of intended graduate study. Many departments (see the section on Advanced Degree Programs at Duke) list specific prerequisites. Students are urged to anticipate the language requirement and are reminded that Educational Testing Service Graduate School Foreign Language tests in French, German, Russian, and Spanish are offered to undergraduate and graduate students at many centers on nationally uniform dates (see the section on Language Requirement).

Procedures. A student seeking admission to the Graduate School should request the Dean of the Graduate School to send an application blank. This should be filled out completely and returned promptly. Each application must be accompanied by a nonrefundable fee of fifteen dollars in check or money order payable to Duke University. In addition the student is required to provide the following supporting documents: (1) two copies of the official transcript from each college, university, or seminary attended sent to the Dean directly by the institution: (2) as







soon as possible, two supplementary transcripts showing completion of work which was in progress when the earlier transcript was made; (3) three letters of recommendation, written on the forms provided, by persons best qualified to judge the applicant as a prospective graduate student, and mailed directly to the Dean; (4) scores on the Graduate Record Examination Aptitude Test for all departments; and (5) scores on the Graduate Record Examination Advanced Test for the Departments of Biochemistry, Botany, Chemistry, English, Mathematics, Microbiology, Pathology, Physics, Physiology, Psychology, Romance Languages, Sociology, and Zoology.

Applicants to the Graduate School of Business Administration and the Department of Health Administration are required to take the Admission Test for Graduate Study in Business, administered by the Educational Testing Service.

Students applying for financial aid in all departments should take the Graduate

Record Examination no later than the October testing in order to meet the February 1 deadline. Information on times and places of the Graduate Record Examinations can be provided at the applicant's college or by the Educational Testing Service, Princeton, New Jersey 08540, or Berkeley, California 94704.

Fully qualified students from outside the United States are welcome to take courses in the Graduate School and, in many instances, to study toward a degree. In applying for admission the foreign student must, in addition to the information required of all students, submit with application materials (1) if the student's native language is not English, certification of English proficiency demonstrated by scores from the Test of English as a Foreign Language (TOEFL), administered through The Educational Testing Service in Princeton, New Jersey; (2) a statement showing financial arrangements for the proposed term at Duke (estimated costs per calendar year are \$6,200); and (3) a statement by a qualified physician describing any emotional or physical illness the applicant has had during the previous five years. A foreign student must meet all these requirements before the Graduate School will make any offer of admission.

All foreign students whose native language is not English will be examined during their first registration period for competence in the use of oral and written English. Until competence is determined, admission and arrangements for an award involving teaching must remain provisional. Students found to lack the necessary competence will be required to enroll in the non-credit course called English for Foreign Students and to reduce their course or research program by 3 units.

A student who does not successfully complete this course during the first year of residency will not be permitted to continue graduate work at Duke University. Passing this examination or the course, if

it is required, will not meet degree requirements for a foreign language.

When admission is approved, the student will receive a letter of admission and an acceptance form. The process of admission is not complete until the student returns the acceptance form.

Applicants who are admitted will be offered full admission, provisional admission, or nondegree admission. Provisional admission for a trial period of one semester or a minimum of 12 hours of course work is offered to students who appear to warrant admission but do not fully comply with admission requirements. Graduate credit earned under provisional status may be applied toward an advanced degree at Duke University if and when the student is granted full admission. Nondegree odmission is offered to students who meet the admission requirements and who desire to engage in graduate study not subject to the restrictions of a graduate degree program. With the approval of the student's major department and the Dean of the Graduate School, a maximum credit of 6 units earned under nondegree status may be applied toward an advanced degree at Duke University if and when the student is granted full admission.

It is the applicant's responsibility to make certain that the Graduate School Office has received all required material before the specified deadlines. Because applications cannot be reviewed until all supporting documents are filed, applications should be submitted two weeks before the closing dates listed below.

We encourage all candidates to apply by February 1. Anyone whose folder is not complete before that date will face the possibility that departmental enrollment will have been filled. Although the Graduate School Office will process later applications, it cannot guarantee full consideration of a folder for any department after April 15.

| Fall semester, admission and awardFebruary 1 |
|--|
| Fall semester, admission only |
| Spring semester, admission only |
| Summer session, 1976* first term |
| Summer session, 1976* second term |
| Summer session, 1976* third term |

^{*}Students seeking admission to the Graduate School for study in the summer session should apply to the Dean of the Graduate School and to the Director of the Summer Session.



Earning the Degrees

Duke University offers graduate programs leading to the specified advanced degrees in the following fields:

Anatomy, A.M., Ph.D.
Anthropology, A.M., Ph.D.
Art History, A.M.
Biochemistry, A.M., Ph.D.
Biomedical Engineering, M.S., Ph.D.
Botany, A.M., M.S., Ph.D.
Business Administration, M.S.,* M.B.A.,
Ph.D.
Chemistry, A.M., Ph.D.
Civil Engineering, M.S., Ph.D.
Classical Studies, A.M., Ph.D.

Economics, A.M., Ph.D.
Education, M.Ed., M.A.T., A.M., Ed.D.,
Ph.D.
Electrical Engineering, M.S., Ph.D.
English, M.A.T., A.M., Ph.D.

Computer Science, A.M., Ph.D.

Forestry, A.M., † M.S., Ph.D.

Geology, M.S.

Germanic Languages and Literature, A.M.

Health Administration, M.H.A.

History, M.A.T., A.M., Ph.D.

Mathematics, M.A.T., A.M., M.S., ||Ph.D.

Mechanical Engineering, M.S., Ph.D.

Microbiology and Immunology, A.M., Ph.D.

Pathology, M.S., Ph.D. Philosophy, A.M., Ph.D.

Physical Therapy, M.S.‡ Physics, A.M., Ph.D.

Physiology, A.M., Ph.D.

Physiology, A.M., Ph.D. Political Science, A.M., Ph.D.

Psychology, A.M., Ph.D.

Religion. A.M.,§ Ph.D.

Romance Languages, A.M., Ph.D.

Sociology, A.M., Ph.D. Zoology, A.M., Ph.D.

*Applicants should write directly to the Graduate School of Business Administration for further information.

†In addition to the regular advanced degrees in the Graduate School, the School of Forestry offers the professional degrees of Master of Forestry and Doctor of Forestry.

‡Prospective applicants should write directly to the Department of Physical Therapy, Box 3247, Duke Medical Center, Durham, N. C. 27710, for further information.

§In addition to the regular advanced degrees in the Graduate School, the Divinity School offers the professional degrees of Master of Divinity, Master of Religious Education, and Master of Theology.

∥In addition to the regular advanced degrees in the Graduate School, the Department of Mathematics offers the Master of Science in Statistics and Computing.

The Language Requirement

Although individual departments establish their own minimal requirements (see individual departmental headnotes in this Bulletin), the regulations of the Graduate School require no language for the master's degree, and, in most departments. a reading knowledge of one foreign language, ancient or modern, for the Ph.D. degree. The languages normally required are French, German, and Russian, but others may be offered if appropriate and approved. The foreign language requirement may be satisfied in the following ways: (1) by a passing score on one of the ETS examinations administered at any national center (including Duke) and taken no longer than six years before the preliminary examination, (2) by transfer from another institution, with the limitations set forth in the more detailed Bulletin of the Graduate School, (3) in any language for which ETS tests are not available, by a reading examination administered by a qualified examiner and arranged by the Graduate School Office, or (4) by a reading examination in any foreign language, administered by a qualified member of the faculty under a procedure specified by the department and approved by the Dean and the Executive Committee of the Graduate Faculty. In special circumstances a department that wishes to do so may ask the Dean and the Executive Committee of the Graduate Faculty to waive the language requirement.

Foreign students whose native language is not English will be examined during their first registration period in their use of English, and those found deficient will be required to enroll in the course entitled English for Foreign Students. Advanced level, non-credit reading courses in French and German are provided for students who need them.

Other Requirements

The general requirement for a master's degree is a minimum of 30 units (semester hours) of course-seminar-research credit. The student must present acceptable grades for a minimum of 24 units of graduate courses. The nature of the additional 6 units for which he must register depends on whether he is enrolled in a thesis or non-thesis program; i.e., these last 6 units are earned either with

successful submission of the thesis or with such other courses or academic exercises as are approved by the student's department. In the M.A.T. program, practice teaching is included for students who lack it, and for them the total units required is a minimum of 36. A pattern of major and related work is prescribed for the course-seminar work, allotting half or more of the units to the major. For example, the M.Ed. program allows at least half the units to fall within the student's teaching field, and the M.A.T. allows a major in either education or teaching fields, according to the student's previous training.

A master's program can be completed in one academic year, but the student who presents a thesis usually needs at least a calendar year, and foreign students should be prepared to study for two years. The maximum length of time permitted from first registration to completion of all requirements is six years. Under certain circumstances a maximum credit of 6 units may be transferred toward the master's degree for graduate courses completed elsewhere, provided the grades earned in the particular courses were not less than B or equivalent. In such a case, however, the transfer of graduate credit does not reduce the required minimum registration for a master's degree at Duke.

The course-seminar-research requirement in the doctoral program is a minimum of 60 units, but the proportions of course-seminar work and research are generally flexible according to the student's needs. The applicant who has already earned the A.M. or M.S. (or for a degree in religion, the B.D. or M.Div.), after establishing the quality of his work here, may be granted transfer credit to a maximum of 30 units, i.e., the equivalent of one year of residence. The dissertation is expected to be a mature and competent piece of writing, embodying the results of original and significant research. All dissertations will be published on microfilm, and the author may retain copyright privileges.

Fairly strict time limitations are set for completion of the doctoral program. The preliminary examination, which may be taken only after language and course-seminar requirements have been met, and which formally admits a student to candidacy for the degree, should be passed by the end of the third year of doctoral



study. The interval between preliminary examination and presentation of an acceptable dissertation should ordinarily be one to two years and may not be more than four years without special approval by the Dean. Should this interval extend beyond five years, a second preliminary examination usually becomes necessary.

Financial Information

Tuition and fees are charged at the rate of \$96 per unit (a unit is equivalent to a semester hour), with the normal full program of study being 30 units for an academic year. Upon successful completion of the preliminary examination and two years of residence, the normal full program during the dissertation period is 3 units per semester while in residence, or 1 unit per semester while not in residence. The basic necessary expenses for a year of graduate study, assuming one lives in University graduate dormitories, are therefore approximately as follows:

| First | t and Second Year | Dissertation Year |
|------------|----------------------|----------------------|
| Tuition | \$2,880 | \$576 |
| Room Rent* | 416 | 416 |
| Board† | 850 | 850 |

^{*}Depending upon accommodations chosen. +Cafeteria estimate.

Additional allowances should be made for books, laundry, and other personal expenditures.

Housing is provided for approximately 149 single men and 56 single women in the Graduate Center. The Town House Apartments, located between East and West Campuses, will accommodate both families and single students in 30 airconditioned apartments.

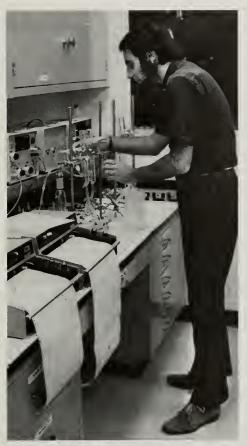
In August, 1974, the Central Campus Apartments began accommodating married and single students from the University and the Medical Center. All 500 units will become available for occupancy in September, 1975. The University also will provide assistance to graduate and professional school students in locating suitable off-campus housing in Durham.

Financial Aid. In recent years at Duke about two-thirds of all full-time students have held an award of some type; about one-third of these were aided by Duke funds and the other two-thirds by funds from other sources.

The student who seeks financial aid from Duke University should be certain that he files his request for admission and award not later than February 1 of the year in which September admission is sought. The application for admission, including transcripts of previous college work and letters of recommendation, is processed by the Graduate School and for-









warded to the department in which the student wishes to pursue advanced work. The graduate faculty—or admissions committee—in the department reviews all applications and then makes its recommendation to the Dean for announcement in late March. The most outstanding applicants are then offered awards; the next in order of rank are placed on an alternate list for awards. Other students are offered only admission to the Graduate School. Because of multiple applications by students, a fraction of the awards offered by any graduate school are turned down by students who finally decide to go elsewhere. Alternates on the award list are immediately notified, and the process continues until the desired number of awards has been made.

Awards to entering students at Duke are in the form of fellowships, scholarships, and assistantships.

lames B. Duke Graduate Fellowships are provided through a special endowment of the Duke Endowment. Fellows are chosen from nominations made by the departments. Only outstanding applicants who are beginning graduate study and seeking the Ph.D. degree are considered. These nominations are made in late February and are judged in a competition which includes candidates from all departments granting the Ph.D. degree. These fellowships provide for payment of tuition for full registration and a stipend of \$300 per month for the full calendar year during the first two years and \$310 per month during the third (final) year. The award requires no service beyond that which is required of all students in a given department as a part of their training and is renewable each year upon satisfactory progress. The total value of a lames B. Duke Fellowship over the full three years of tenure is approximately \$16,600.

Graduate Fellowships range in value to \$4,500 for the academic year and are made on a year-to-year basis. They are awarded upon recommendation by each department. No service is required as a prerequisite for accepting a fellowship, but all fellowship holders are expected to maintain full-time registration.

Graduate Scholarships provide for payment of tuition or partial tuition. Full tuition scholarships are valued at \$2,580 for the academic year. Scholarships are



awarded upon recommendation of each department.

Graduate Assistantships range in value to \$4,800 for the academic year. Assistants may be permitted to reduce their registration to 12 or 9 units, depending on the amount of service required. Residence credit as a full-time student is allowed under these circumstances. Assistantships are most common in the science departments, where the student often provides laboratory assistance to various members of the faculty. Most graduate assistants remain in residence during the summer sessions carrying research or course credit. In this way, the normal progress toward a degree is not impeded by the reduced load during the fall and spring semesters. Departmental research funds are often available to provide financial assistance during the summer.

Other graduate fellowships are available from foundations, industry, or the government. Among those at the University's disposal are James B. Duke Commonwealth fellowships for students in political science, economics, and history who are concentrating their studies on the British Commonwealth; Kearns fellowships in religion; Donner fellowships for Canadian studies for students in history, sociology, political science, and economics; Medieval and Renaissance Studies fellowships; and Cokesbury awards for the preparation for college teaching. In 1974-1975 six students held Foreign Language Fellowships awarded by Duke University under Title VI of the National Defense Education Act in Southeast Asia Area Studies. Over 300 other traineeships and assistantships are available in the biological, physical, and social sciences under grants from National Institutes of Health, National Institutes of Mental Health, National Science Foundation, research agencies in the Department of Defense, and other governmental agencies.

Loans may be obtained through the National Direct Student Loan Fund and through the Federally Guaranteed Student Loan Program. In addition the University provides loans from funds set aside for this purpose. Particular eligibility requirements must be met for each program.

All require that need criteria be met, but funds under favorable terms are expected to be available to meet legitimate requests. Further information may be obtained from the Graduate School Office.

It is difficult to estimate a student's financial needs during the years of graduate study because of individual tastes and habits. One can predict with some accuracy, however, the three major items of expense at Duke: tuition, \$2,880 for a full program for each of the first two years, usually \$576 for the Ph.D. dissertation year; room rent, \$416-\$653 each year in graduate dormitories; and board, approximately \$700-\$850 in graduate dining halls. Students holding awards are usually paid in nine equal installments beginning in late September, and tuition and room fees may be deducted monthly on a prorata basis.

The costs of graduate education are high, but Duke University attempts to allocate its funds so that the superior student is able to finish his work for a degree in the normal length of time regardless of his personal financial resources. This is a contribution to the community of scholarship which the University is glad to bear.

The applicant who wishes further information on facilities and regulations on course programs not covered in this Bulletin is invited to write to the Director of Admissions of the Graduate School, or the director of graduate studies in the department of intended study.

Calendar of the Graduate School

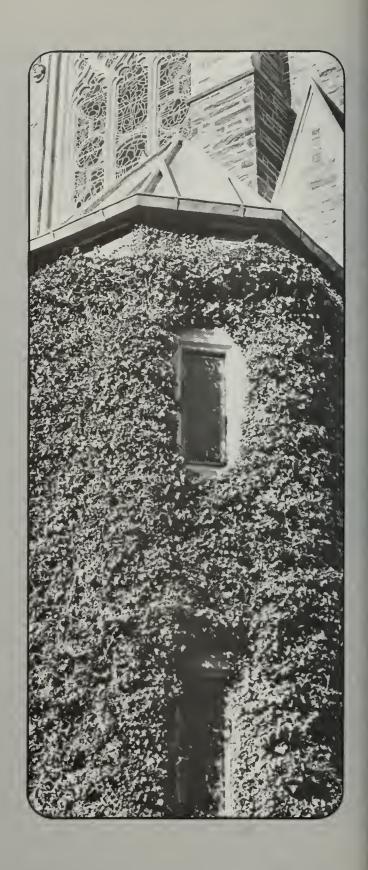
Summer Session 1975

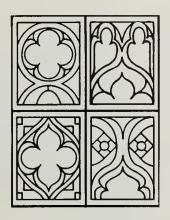
First Term: May 13-June 14 Second Term: June 16-July 17 Third Term: July 18-August 19

Academic Year 1975-1976

First Semester: September 2-December 19 Second Semester: January 12-May 4

| August 25 | for First Semester |
|------------------|---------------------|
| September 2 | Classes Begin |
| November 26-30Th | anksgiving Recess |
| December 5-11 | Reading Period |
| December 19Enc | d of First Semester |
| January 9 | r Second Semester |
| January 12 | Classes Begin |
| March 6-14 | Spring Recess |
| April 20-26 | Reading Period |
| May 4End o | of Second Semester |
| May 9 | |





Advanced Degree Programs*

Anatomy

The Department of Anatomy offers graduate programs to produce teachers and research workers competent in a broad range of anatomical sciences; A.M. and Ph.D. degrees are offered. Students with a wide variety of backgrounds and interests in the biological sciences can be accommodated. All students participate in a core anatomical sciences course (Anatomy 301) and gain experience in teaching over the range of departmental interests. Students are encouraged to round out their formal course work by drawing upon the offerings of other departments in the University, as well as those in the Anatomy Department. Laboratories within the department are equipped for and actively support research in several areas. Some idea of the opportunities for degree research may be gleaned from the description of Anatomy 312. For further information contact the Director of Graduate Studies.

Professors

John Wendell Everett, Ph.D. (Yale); J. Moses, Ph.D. (Columbia); Talmadge Lee Peele, M.D. (Duke); J. David Robertson, M.D. (Harvard), Ph.D. (Massachusetts Inst. of Tech.), Choirmon.

Associate Professors

Matthew Cartmill, Ph.D. (Chicago); Shelia J. Counce, Ph.D. (Edinburgh); Kenneth Lindsay Duke, Ph.D. (Duke); William Hylander, Ph.D. (Chicago); William Longley, Ph.D. (London); Michael K. Reedy, M.D. (Washington).

Assistant Professors

Mark Adelman, Ph.D. (Chicago), Director of Groduote Studies; Jan Bergeron, V.M.D. (Pennsylvania); Charles Blake, Ph.D., (California at Los Angeles); Joseph Corless, M.D., Ph.D. (Duke); Harold Erickson, Ph.D. (Johns Hopkins); William Fletcher, Ph.D. (California at Berkeley); William C. Hall, Ph.D. (Duke); Kurt E. Johnson, Ph.D. (Yale); Richard F. Kay, Ph.D., (Yale); Moses S. Mahaley, M.D., Ph.D. (Duke); Timothy Strickler, Ph.D. (Chicago); Lee Tyrey, Ph.D. (Illinois).

Lecturer

Irving T. Diamond, Ph.D. (Chicago).

*For full course descriptions including credit and name of instructor see the official detailed Bulletin of the Graduate School.

Courses of Instruction

- 207. Human Anatomy
- 208. Anatomy of the Trunk
- 215. Contractile Processes
- 216. Biological Psychology
- 217. Structure and Function of Visual Photoreceptors
- 219. Molecular and Cellular Basis of Development
- 219S. Seminar
- 231. Human Evolution
- 238. Function and Evolutionary Morphology of Primates
- 240. Mechanisms of Biological Motility
- 246. The Primate Fossil Record
- 261. History of Generation and Mammalian Reproduction
- 263. History of Anatomy
- 264. Mammalian Embryology and Developmental Anatomy
- 265. Seminar in Chromosome Biology
- 266. Seminar in Chromosome Biology
- 276. Neuroanatomical Basis of Sensory Physiology

- 280. Structure and Assembly of Macromolecules
- 286. The Light Microscope, the Electron Microscope, and X-ray Diffraction in Biology
- 288. Seminar on the Role of the Cell in Development and Heredity
- 291. Special Topics in Nerve Ultrastructure
- 300. Gross Anatomy
- 301. Gross Human Anatomy, Microscopic Anatomy, and Neuroanatomy
- 303. Neuroanatomical Basis of Behavior
- 312. Research
- 313, 314. Anatomy Seminar
- 334. Topics in Physical Anthropology
- 340. Tutorial in Advanced Anatomy
- 344. Advanced Neuroanatomy of Sensory and Motor Mechanisms
- 354. Research Techniques in Anatomy
- 418. Reproductive Biology

Anthropology

The department offers graduate work leading to the Ph.D. degree in anthropology. Applicants for admission should submit scores on the Graduate Record Examination Aptitude Test.

Candidates for a Ph.D. degree must demonstrate a general competence in four major sub-fields (sociocultural anthropology, physical anthropology, anthropological linguistics, and prehistory) as well as specialization in one or more of these subfields. Recognizing a trend in modern anthropology toward interdisciplinary research, the department allows the student to replace some of the course work required for the Ph.D. by advanced work in anatomy, economics, psychology, sociology, zoology, or other disciplines relevant to his program.

Further details of the graduate program, the departmental facilities, the staff, and various stipends available are described in the Guidelines for Graduate Students in Anthropology which may be obtained from the Director of Graduate Studies, Department of Anthropology.

Professors

Richard G. Fox, Ph.D. (Michigan); Ernestine Friedl, Ph.D. (Columbia), Choirmon ond Director of Groduote Studies; Weston LaBarre, Ph.D. (Yale), Jomes B. Duke Professor of Anthropology.

Associate Professors

Mahadev L. Apte, Ph.D. (Wisconsin); Matthew Cartmill, Ph.D. (Chicago); William Hylander, Ph.D. (Chicago); William M. O'Barr, Ph.D. (Northwestern); Lawrence Rosen, J.D., Ph.D., (Chicago).

Assistant Professors

James Boon, Ph.D. (Chicago); Ronald W. Casson, Ph.D. (Stanford); Naomi Quinn, Ph.D. (Stanford); Carol A. Smith, Ph.D. (Stanford).

Courses of Instruction

- 210. Linguistic Anthropology: Theory
- 211. Linguistic Anthropology: Ethnography of Communication
- 220. Society and Culture in India
- 222. Topics in African Anthropology
- 231. Human Evolution

- 242. Topics in Prehistory
- 243. Theory and Method in Archaeology
- 244. Primate Behavior
- 245. Functional and Evolutionary Morphology of Primates
- 246. The Primate Fossil Record

249. Topics in Economic Anthropology

250. The Anthropology of Cities

251. Ethnography of Humor

259. Linguistic Anthropology: Language Acquisition

262. Law and Anthropology

263. Primitive Art and Music

264. Primitive Religion

265. Personality and Society

266. Personality and Culture

267. Cognitive Anthropology

268. Law and the American Indian

270. Ethnographic Field Methods

271. Methods of Data Analysis

275. Rank, Power, and Authority in Pre-Industrial Societies 276. Analysis of Kinship Systems

278S. Special Topics in Political Anthropology

280S, 281S. Seminar in Selected Topics

291, 292. Anthropological Theory

330, 331. Seminar in Anthropology

334. Topics in Physical Anthropology

335, 336. Linguistic Theory and Methods 393. Individual Research in Anthropology

402. Interdisciplinary Seminar in the History of the Social Sciences

410. Seminar in the Government, History, and Social Structure of India and Pakistan

Art

Graduate work in the Department of Art is offered leading to the A.M. degree in art history and is designed to provide basic training in the history of art with specialization in a given field selected by the student after consultation with and approval of the Director of Graduate Studies. Prospective students should present a minimum of 24 semester hours of undergraduate work in the history of art. In special cases a student who does not fulfill this prerequisite may be required to attend prescribed undergraduate courses. A reading knowledge of one foreign language (preferably German) is required; candidates who do not meet this requirement upon admission to the program are expected to do so by the end of their first term in residence.

The program for the A.M. degree in art history consists of 30 units, as follows: 12 units in art history; 6 units in an approved minor; 6 units in the major or minor, or other approved subject; and 6 units in thesis. A written thesis is required. The candidate must also pass a written comprehensive examination testing his knowledge

of art history and pertinent bibliographical resources.

Professors

Dario Covi, Ph.D. (New York Univ.), Choirmon; Marianna Jenkins, Ph.D. (Bryn Mawr); Sidney David Markman, Ph.D. (Columbia), Director of Groduote Studies; Earl George Mueller, Ph.D. (Iowa State); Elizabeth Read Sunderland, Ph.D. (Radcliffe).

Assistant Professor

Sara Lichtenstein, Ph.D. (London).

Lecturer

Karla Langedijk, Ph.D. (Amsterdam).

Visiting Part-time Professor

Frances Huemer, Ph.D. (New York Univ.).

Courses of Instruction

*217. Aegean Art

*218. Early Greek Art

*233. Early Mediaeval Architecture

237. French Renaissance Art

239. Seminar in Architecture of Britain

240. Seminar in Architecture of North

241. Problems in Latin American Art

245, 246. Problems in Italian Renaissance Painting

247. Problems in the History of Graphic Arts
*Offered on demand.

248. Florentine Painting during the Renaissance

249. Problems in Pre-Columbian Art and Archaeology

251-252. Research

253. Studies in Italian Renaissance Sculpture

255, 256. Iconological Problems

257, 258. Problems in Modern Art

291, 292. Museology Seminar

293, 294. Special Problems in Art History

399. Directed Reading and Research

Official on demand

Asian Languages

200-201. Special Studies in South Asian Languages: Hindi-Urdu

Biochemistry

Graduate work in the Department of Biochemistry is offered leading to the Ph.D. degree. Preparation for such graduate study may take diverse forms. Undergraduate majors in chemistry, biology, mathematics, or physics are welcomed, but adequate preparation in chemistry is essential. Graduate specialization areas include protein structure and function, crystallography of macromolecules, nucleic acid structure and function, lipid biochemistry, membrane structure and function, molecular genetics, and enzyme chemistry and neurochemistry. The Division of Genetics of the department, in cooperation with the University Program in Genetics, offers biochemistry students the opportunity to pursue advanced research and study to fulfill the requirements for the Ph.D. degree.

Professors

Irwin Fridovich, Ph.D. (Duke); Samson R. Gross, Ph.D. (Columbia), Director of the Genetics Division; Walter R. Guild, Ph.D. (Yale); Philip Handler,* Ph.D. (Illinois); Jerome S. Harris, M.D. (Harvard); Robert Hill, Ph.D. (Kansas), Choirmon; Henry Kamin, Ph.D. (Duke); Norman Kirshner, Ph.D. (Pennsylvania State); Kenneth S. McCarty, Ph.D. (Columbia); Charles Tanford, Ph.D. (Princeton), Jomes B. Duke Professor of Physical Biochemistry.

Associate Professors

Stanley H. Appel, M.D. (Columbia); Ronald C. Greene, Ph.D. (California Inst. of Tech.); Bernard Kaufman, Ph.D. (Indiana); Sung-Hou Kim, Ph.D. (Pittsburgh); William Sanford Lynn, M.D. (Columbia); K. V. Rajagopalan, Ph.D. (Univ. of Madras), Director of Groduote Studies; Jacqueline A. Reynolds, Ph.D. (Washington Univ.); Harvey J. Sage, Ph.D. (Yale); Lewis M. Siegel, Ph.D. (Johns Hopkins); Robert E. Webster, Ph.D. (Duke).

Assistant Professors

Robert Bell. Ph.D. (California at Berkeley); Robert L. Habig, Ph.D. (Purdue); Dwight H. Hall, Ph.D. (Purdue); Philip D Harriman, Ph.D. (California at Berkeley); William N. Kelley, M.D. (Emory); Nicholas M. Kredich, M.D. (Michigan); Robert J. Lefkowitz, M.D. (Columbia); P. A. McKee, M.D. (Oklahoma), David C. Richardson, Ph.D. (Massachusetts Inst. of Tech.); James B. Sullivan, Ph.D. (Texas); Robert W. Wheat, Ph.D. (Washington Univ.).

Associates

John A. Bittikofer, Ph.D. (Purdue); Joseph Bonaventura, Ph.D. (Texas); Joe M. McCord, Ph.D. (Duke); Yasuhiko Nozaki, Ph.D. (Tokyo Univ.); Howard Steinman, Ph.D. (Yale).

Courses of Instruction

- 204. Introductory Genetics
- 208. Laboratory Methods in Biochemistry
- 209-210. Independent Study
- 216. Molecular Genetics
- 219. Molecular and Cellular Basis of Development
- 219S. Seminar
- 220. Adaptations of Organisms to the Marine Environment
- 222. Structure of Biological Macromolecules
- 241. General Biochemistry
- 248. Introductory Biochemistry
- 276. Comparative and Evolutionary Biochemistry
- 282. Experimental Genetics

- 284. Current Topics in Genetic Mechanisms
- 286. Current Topics in Immunochemistry
- 288. Carbohydrates and Lipids of Biological Systems
- 290. Bioenergetics
- 293. Macromolecules
- 295. Enzyme Mechanisms
- 296. Biological Oxidations
- 297. Intermediary Metabolism
- 299. Nutrition
- 302. Neurochemistry
- 345, 346. Biochemistry Seminar
- 351, 352. Genetics Seminar
- 390. Biochemistry of Membranes

Botany

Graduate work in the Department of Botany is offered leading to the A.M. (non-thesis), M.S. (thesis), and Ph.D. degrees. Before undertaking graduate study in botany *On leave of absence.

a student should have had in his undergraduate program at least 12 semester hours of botany beyond the elementary course and related work in the biological sciences. Some work in chemistry and physics is desirable and, for some phases of botanical study, necessary. Graduate Record Examination scores are required of all applicants. The student's graduate program is planned to provide a broad basic training in the various fields of botany, plus intensive specialization in the field of the research problem.

Professors

Lewis Edward Anderson, Ph.D. (Pennsylvania); William Dwight Billings, Ph.D. (Duke), Jomes B. Duke Professor of Botony; William Lewis Culberson, Ph.D. (Wisconsin); Henry Hellmers, Ph.D. (California at Berkeley); Terry W. Johnson, Ph.D. (Michigan); Aubrey Willard Naylor, Ph.D. (Chicago), Jomes B. Duke Professor of Botony; Jane Philpott, Ph.D. (State Univ. of Iowa); Donald E. Stone, Ph.D. (California at Berkeley); Richard A. White, Ph.D. (Michigan); Robert L. Wilbur, Ph.D. (Michigan), Choirman.

Associate Professors

Janis Antonovics, Ph.D. (Wales); Richard T. Barber, Ph.D. (Stanford); John E. Boynton, Ph.D. (California at Davis); Kenneth R. Knoerr, Ph.D. (Yale); Richard B. Searles, Ph.D. (California at Berkeley), Director of Groduote Studies; Boyd R. Strain, Ph.D. (California at Los Angeles).

Assistant Professors

William F. Blankley, Ph.D. (California at San Diego); Norman L. Christensen, Jr., Ph.D. (California at Santa Barbara).

Lecturer

C. F. Culberson, Ph.D. (Duke).

Courses of Instruction

202. Phytoplankton Systematics

203. Cytogenetics

203L. Laboratory in Cytogenetics

204. Marine Microbiology

205. Anatomy

206. Anatomy of Woody Plants

207. Microclimatology

209. Lichenology

210. Bryology

211. Marine Phycology

212. Phycology

214. Biological Oceanography

217. Environmental Instrumentation

221. Mycology

225, 226. Special Problems

233. Microbiology

235. Evolutionary Systematics

236. Major Global Ecosystems

242. Systematics

245. Plant Diversity

246. Ecology

248. Introductory Biochemistry

250S. Plant Biosystematics

251. Physiology

252. Plant Metabolism

255. Plant Systematics

256. Physiological Role of Minerals and Water

257. Principles of Plant Distribution

258. Physiology of Growth and Development

258L. Physiology of Growth and Development

259. The Environment

265. Physiological Plant Ecology

267. Concepts and Methods of Plant

Synecology

268S. Quantitative Plant Ecology

280. Principles of Genetics

285S. Population Genetics

286. Evolutionary Mechanisms

287S. Quantitative Genetics

295S, 296S. Seminar in Botany

300. Tropical Biology: An Ecological Approach

305. Tropical Studies

344S. Advanced Topics in Micrometeorology

and Biometeorology 359-360. Research in Botany

Business Administration

The Graduate School of Business Administration offers work leading to the M.B.A., Ph.D., and the M.S. in Management Sciences degrees. The M.B.A. program is designed for students whose undergraduate work included at least one year of calculus and an educational background adequate for rigorous analysis. Usually, undergraduate majors in such fields as the physical and biological sciences, mathematics, engineering, and the social sciences are well suited for the program. The M.B.A. program is designed to provide a thorough foundation in the concepts and

theory that underlie the design, operation, and control of modern complex organizations.

The Ph.D. program is designed for students who desire to enter either the academic profession or advanced and specialized administrative research positions. The program accepts students with a bachelor's degree and normally requires three to four years.

All 200-level courses in the Department of Management Sciences are open to graduate students from other departments. They are listed in the Bulletin of Undergraduate Instruction.

Professors

Helmy Baligh, Ph.D. (California at Berkeley); Kalman J. Cohen, Ph.D. (Carnegie Inst. of Tech.); Thomas F. Keller, Ph.D. (Michigan); Dan J. Laughhunn, D.B.A. (Illinois); Wilbur G. Lewellen, Ph.D. (Massachusetts Inst. of Tech.); Arie Y. Lewin, Ph.D. (Carnegie-Mellon); David W. Peterson, Ph.D. (Stanford).

Associate Professors

Kenneth R. Baker, Ph.D. (Cornell); Joseph Battle, Ph.D. (Michigan); Richard M. Burton. D.B.A. (Illinois); David C. Dellinger, Ph.D. (Stanford); Wayne J. Morse, Ph.D. (Michigan State).

Assistant Professors

Carole Aldrich McCleery, Ph.D. (Carnegie-Mellon); William W. Damon, Ph.D. (Cornell); Arthur J. Kuhn, Ph.D. (California at Berkeley); Wesley A. Magat, Ph.D. (Northwestern); Steven F. Maier, Ph.D. (Stanford); Robert E. Taylor, Ph.D. (North Carolina); James H. Vander Weide, Ph.D. (Northwestern); Julie H. Zalkind, Ph.D. (Johns Hopkins).

MASTER OF BUSINESS ADMINISTRATION

First Year Courses (Required)

| 300. Managerial Economics I 310. Mathematics for Management | 312. Operations Research 320-321. Organization Theory and Manage- |
|--|--|
| | 520-521. Organization Theory and Manage- |
| 311. Statistical Analysis for Management | ment I, II |
| Decisions | 330. Accounting Systems I |

Second Year Courses (Required)

| 350. Public Policy of the Firm 364 360. Strategy of the Organization I | . Operations Strategy . Management Information and Control Systems . Strategy of the Organization II |
|--|---|
|--|---|

Elective Courses

| 313. Advanced Operations Research | 353. Marketing |
|--------------------------------------|--------------------------------------|
| 333. Controllership | 355. Production |
| 334. External Reporting and Auditing | 390. The Practicum |
| 351. Finance | 391.19. Special Topics in Management |

MASTER OF SCIENCE IN MANAGEMENT

Required Courses

| required Courses | |
|---------------------------------------|---|
| 300. Managerial Economics | 360. Planning and Control Problems of the |
| 308. Calculus for Management | Firm |
| 310. Quantitative Methods | 340. Controllership |
| 311. Statistics | 341. Marketing Management |
| 312. Operations Research | 342. Financial Management |
| 320. Organization Analysis and Design | 343. Operations Management |
| 330. Accounting and Control Systems | 349. Special Topics in Management |
| 350. External Environment of the Firm | 390. Practicum |
| | |

DOCTOR OF PHILOSOPHY

309.1-.9. Research in Managerial Economics 329.1-.9. Research in Information and Ac-319.1-.9. Research in Quantitative Methods counting Systems 339.1-.9. Research in Organization Theory and Management

348.1-.9. Research in Public Policy and Social Responsibility

352.1-.9. Research in Finance

354.1-.9. Research in Marketing

356.1-.9. Research in Production

392-393. Tutorial in Interdisciplinary Areas

397. Dissertation Research

Chemistry

In the Department of Chemistry graduate work is offered leading to the A.M. and Ph.D. degrees. Before undertaking a graduate program in chemistry, a student should have taken an undergraduate major in chemistry along with related work in mathematics and physics.

Graduate courses in the department are offered in the fields of analytical, inorganic, organic, and physical chemistry. Research programs are active in all these fields. A booklet providing detailed information on the department is available from the Director of Graduate Studies.

Professors

Charles Kilgo Bradsher, Ph.D. (Harvard), Jomes B. Duke Professor of Chemistry; Donald B. Chesnut, Ph.D. (California Inst. of Tech.), Director of Graduate Studies; Marcus Edwin Hobbs, Ph.D. (Duke); Peter W. Jeffs, Ph.D. (Natal); William R. Krigbaum, Ph.D. (Illinois), Jomes B. Duke Professor: Andrew T. McPhail, Ph.D. (Glasgow); William E. Parham, Ph.D. (Illinois), R.J. Reynolds Compony Professor of Chemistry; Jacques C. Poirier, Ph.D. (Chicago); Louis DuBose Quin, Ph.D. (North Carolina), Choirmon: Peter Smith, Ph.D. (Cambridge); Howard Austin Strobel, Ph.D. (Brown); Richard L. Wells, Ph.D. (Indiana); Pelham Wilder, Jr., Ph.D. (Harvard).

Associate Professors

Robert W. Henkens, Ph.D. (Yale); Charles H. Lochmüller, Ph.D. (Fordham); Richard A. Palmer, Ph.D. (Illinois); Ned Allen Porter, Ph.D. (Harvard).

Assistant Professors

Rodger W. Baier, Ph.D. (Washington); Steven Baldwin, Ph.D. (California Inst. of Tech.); Alvin L. Crumbliss, Ph.D. (Northwestern); William Gutknecht, Ph.D. (Purdue).

Adjunct Associate Professors

Robert G. Ghirardelli, Ph.D. (California Inst. of Tech.); Colin G. Pitt, Ph.D. (London); David Rosenthal, Ph.D. (Massachusetts Inst. of Tech.); Bernard F. Spielvogel, Ph.D. (Michigan).

Courses of Instruction

- 201. Molecular Spectroscopy
- 203. Quantum Chemistry
- 205. Structure and Reaction Dynamics
- 207. Principles of Thermodynamics, Diffraction, and Kinetics
- 230. Chemical Pollution of Coastal Waters
- 240. Chemical Oceanography
- 275, 276. Advanced Studies
- 300. Basic Statistical Mechanics
- 302. Basic Quantum Mechanics
- 303, 304. Special Topics in Physical Chemistry
- 310. Theoretical and Structural Inorganic Chemistry
- 312. Inorganic Reactions and Mechanisms

- 313, 314. Special Topics in Inorganic Chemistry
- 320. Synthetic Organic Chemistry
- 322. Organic Reactive Intermediates
- 323, 324. Special Topics in Organic Chemistry
- 330. Chemical Separation Methods and Kinetics in Analytical Chemistry
- 331, 332. Special Topics in Analytical Chemistry
- 334. Chemical Instrumentation and Applied Spectroscopy
- 373, 374. Seminar
- 375, 376. Research
- 377. Research Orientation Seminar

Classical Studies

The Department of Classical Studies offers two programs leading to the Ph.D. degree, one with emphasis on literature and philology, the other with emphasis on ancient history and archaeology. For regular admission to the program in literature and philology a student must offer three years of college study above the elementary level in one of the classical languages and two college years in the other. Students wishing to enter the program in ancient history and archaeology will be required on

entrance to demonstrate satisfactory competence in both Greek and Latin for reading in the primary sources; failure to demonstrate such competence will require modification of the student's program to repair the deficiency.

The department's special requirements in addition to the general requirements of the University for the Ph.D. degree set forth in the section on Program Information in the detailed official Bulletin of the Graduate School are presented in a sheet that may be obtained from the Director of Graduate Studies. They include special requirements on seminars, course work, and the preliminary examination for the Ph.D. de-

A reading knowledge of German and French is required of all candidates for the Ph.D. degree. The candidate should meet one of the language requirements by the end of his first term in residence and the other by the end of his third term.

Professors

Francis Newton, Ph.D. (North Carolina), Director of Groduote Studies; John F. Oates, Ph.D. (Yale), Choirmon; Lawrence Richardson, Jr., Ph.D. (Yale), F.A.A.R.; William H. Willis, Ph.D. (Yale).

Associate Professor

Dennis Keith Stanley, Ph.D. (Johns Hopkins).

Assistant Professors

Peter H. Burian, Ph.D. (Princeton): Kent J. Rigsby, Society of Fellows (Harvard).

Visiting Lecturer

Harry L. Levy, Ph.D. (Columbia).

GREEK

Courses of Instruction

200. Graduate Reading

203. Homer

205. Greek Lyric Poets

206. Aeschylus

208. Sophocles

209. Euripides

210. Aristophanes

221. Early Greek Prose

222. Thucvdides 223. Greek Orators I

224. Greek Orators II

225. Plato

231. Hellenistic Poetry

241. Advanced Prose Composition

301. Greek Seminar I

302. Greek Seminar II

303. Greek Seminar Ill

304. Greek Seminar IV

305. Greek Seminar V 306. Greek Seminar VI

311. Proseminar in Papyrology

313. Proseminar in Greek Epigraphy

321. Seminar in Literary Papyri

323. Seminar in Documentary Papyri

399. Directed Reading and Research

LATIN

200. Graduate Reading

201. The Verse Treatise

202. Roman Satire

203. Epic: Vergil 204. Epic: Lucan and Statius

207. The Prose Epistle 208. The Epistle in Verse

209. Fragments of Early Latin

210. Lyric and Occasional Poetry

211. Roman Oratory I

212. Roman Oratory II

221. Mediaeval Latin I

222. Mediaeval Latin II

225. Palaeography

241. Advanced Latin Composition

250. Teaching Latin

301. Latin Seminar I

302. Latin Seminar II

303. Latin Seminar III

304. Latin Seminar IV 305. Latin Seminar V

306. Latin Seminar VI

312. Proseminar in Latin Palaeography314. Proseminar in Latin Epigraphy

315. Proseminar in Roman Law

399. Directed Reading and Research

CLASSICAL STUDIES

301. Introduction to Classical Philology

351. The Teaching of Classics

CLASSICAL STUDIES (ANCIENT HISTORY)

253. Greece to the Orientalizing Period254. The Age of the Tyrants and the Persian Wars

255. The Age of Pericles

256. The Fourth Century Through Alexander

257. Social and Cultural History of the Hellenistic World from Alexander to Augustus

258. Social and Cultural History of the Graeco-Roman World

260. The History of Rome to 146 B.C.

261. The Roman Revolution, 146-30 B.C. 262. Rome under the Julio-Claudians

263. From the Flavian Dynasty to the Severan

264. From Septimius Severus to Constantine

270. The Rise of the Hellenistic Kingdoms

271. The Hellenistic Kingdoms, 250-31 B.C.

321. Seminar in Ancient History I 322. Seminar in Ancient History II

323. Seminar in Ancient History III

324. Seminar in Ancient History IV

325. Seminar in Ancient History V

326. Seminar in Ancient History VI

327. Seminar in Byzantine History

399. Directed Reading and Research

CLASSICAL STUDIES (ARCHAEOLOGY)

231. Greek Sculpture

232. Greek Painting

235. Roman Architecture

236. Roman Painting

311. Archaeology Seminar I

312. Archaeology Seminar II

Comparative Literature

No graduate degree is offered in comparative literature. The following courses may serve in the minor programs of students in other departments. Consult Professor Salinger, Department of Germanic Languages and Literature.

Courses of Instruction

201, 202. Romanticism

203, 204. Realism and Symbolism

205. Foundations of Twentieth Century European Literature

206. Autobiography

213. The Slavs: Literature and Culture. 1918-1939

214. The Slavs: Literature and Culture, 1940-1970

223. Structuralism and the New Criticism

285. Literary Criticism

301. The Hero in European Fiction. 1830-1940

Computer Science

The Department of Computer Science offers programs leading to the A.M. and Ph.D. degrees. A student entering graduate work in computer science should have a knowledge of mathematics through advanced calculus and at least two computer programming languages. Research interests of present faculty include mathematical foundations of computer science, artificial intelligence, program verification, compiler design, real-time computing, information storage and retrieval, computer design, simulation of systems of interest to social scientists, and numerical analysis.

Professors

Thomas M. Gallie, Ph.D. (Rice); Donald W. Loveland, Ph.D. (New York Univ.), Choirmon; Peter N. Marinos, Ph.D. (North Carolina State); Thomas H. Naylor, Ph.D. (Tulane); Loren Nolte, Ph.D. (Michigan); Max A. Woodbury, Ph.D. (Michigan).

Associate Professors

William E. Hammond, Ph.D. (Duke); Merrell L. Patrick, Ph.D. (Carnegie Inst. of Tech.), Director of Groduote Studies; Charles Starmer. Ph.D. (North Carolina).

Assistant Professors

Alan W. Biermann, Ph.D. (California at Berkeley); Derrell V. Foster, Ph.D. (Texas at Austin): Matthew M. Geller, Ph.D. (California at Berkeley); Susan L. Gerhart, Ph.D. (Carnegie-Mellon); Dietolf Ramm, Ph.D. (Duke).

Adjunct Associate Professor

Leland Williams, Ph.D. (Duke).

Courses of Instruction

- 200. Programming Methodology
- 201. Programming Languages
- 203. Random Signals and Noise
- 205. Signal Detection and Extraction Theory
- 208. Digital Computer Design
- 210. Image Processing
- 215. Artificial Intelligence
- 221. Numerical Analysis I
- 222. Numerical Analysis II
- 223. Numerical Analysis III
- 225. Mathematical Foundations of Computer Science I
- 226. Mathematical Foundations of Computer Science II
- 231. Introduction to Operating Systems
- 232. Metaprograms
- 241, 242. Information Organization and Retrieval

- 244. Computer Simulation Models of Economic Systems
- 250. Clustering and Classification
- 251. Computer Science for Teachers
- 265. Advanced Topics in Computer Science 306. Adaptive Detection and Communication Systems
- 307. Advanced Digital Systems I
- 308. Advanced Digital Systems II
- 311. Inverse Models
- 315. Advanced Artificial Intelligence321. Topics in Numerical Mathematics325. Theory of Computation

- 331. Operating Systems Theory
- 332. Topics in Operating Systems 344. Workshop on Computer Models of
- Social Systems 350. Advanced Engineering Analysis

Economics

The Department of Economics offers graduate work leading to the A.M. and Ph.D. degrees. Among the undergraduate courses of distinct advantage to the graduate student in economics are general accounting, elementary statistics, intermediate economic theory, money and banking, international trade, and basic courses in philosophy, mathematics, and social sciences other than economics. Advanced work in mathematics or statistics is also useful.

Requirements for the Ph.D. degree in economics include examination in economic theory at the end of the first year, and, at the end of the second year, an examination in economic analysis. In addition a student must obtain certification in three fields, one of which may be in an outside minor. The student may select from advanced economic theory, history of political economy, economic development, economic history, international economics, money and banking, labor economics, public finance, industrial organization, econometrics, statistics, Soviet economics, and certain fields outside the Economics Department (e.g., demography). Course work for the Ph.D. degree should be completed in four semesters of residence.

Professors

John Oliver Blackburn, Ph.D. (Florida); Martin Bronfenbrenner, Ph.D. (Chicago), William R. Kenon, Jr. Professor of Economics: David George Davies, Ph.D. (California at Los Angeles); Craufurd David Goodwin, Ph.D. (Duke): Allen C. Kelley, Ph.D. (Stanford), Choirmon; Juanita Morris Kreps, Ph.D. (Duke), James B. Duke Professor of Economics; Thomas Herbert Naylor, Ph.D. (Tulane); Lloyd Blackstone Saville, Ph.D. (Columbia); Vladimir G. Treml, Ph.D. (North Carolina); John M. Vernon, Ph.D. (Massachusetts Inst. of Tech.); Thomas D. Wallace, Ph.D. (Chicago); William Poe Yohe, Ph.D. (Michigan).

Associate Professors

Henry Grabowski, Ph.D. (Princeton); Daniel A. Graham, Ph.D. (Duke); Thomas M. Havrilesky, Ph.D. (Illinois); Edward Tower, Ph.D. (Harvard); Eliot Roy Weintraub, Ph.D. (Pennsylvania), Director of Groduate Studies.

Assistant Professors

David E. Black, Ph.D. (Massachusetts Inst. of Tech.); Bruce R. Bolnick, Ph.D. (Yale); Neil de Marchi, Ph.D. (Australian National Univ.); Marjorie McElroy, Ph.D. (Northwestern); Allen M. Wyse, Ph.D. (Illinois).

Courses of Instruction

- 200. Capitalism and Socialism
- 204. Advanced Money and Banking
- 231. Economic Development of Europe
- 232. Economic History of Japan
- *233. State and Urban Finance
- 237, 283. Statistical Methods
- 243. Econometrics I
- 244. Computer Simulation Models of Economic Systems
- 245. Econometrics II
- 262. Trade Unionism and Collective Bargaining
- 265. International Trade and Finance
- 287. Public Finance
- 293. Soviet Economic History
- 294. Soviet Economic System
- 301. Microeconomic Analysis I
- 302. Microeconomic Analysis II
- 303. Theory of Economic Decision-Making
- 304, 305. Monetary Theory and Policy
- 307. Quantitative Analysis I
- 308. Quantitative Analysis II
- 311, 312. History of Political Economy
- 313, 314. Seminar in Economic Theory
- 316. Seminar in Economics of Soviet-Type Socialism
- 317. Seminar in Demographic, Population, and Resource Problems
- 318. Dissertation Seminar
 - *Offered on demand.

- 319. Seminar in the Theory and the Problems of Economic Growth and Change
- 320. Macroeconomic Analysis I
- 321. Theory of Quantitative Economic Policy
- 322. Macroeconomic Analysis II
- 323. Income Distribution Theory
- 329. Federal Finance
- 330. Seminar in Public Finance
- 331. Seminar in Economic History
- 344. Workshop on Computer Models of Social Systems
- 345. 346. Demographic Techniques I and II
- 350. Seminar in Applied Economics
- 355. Seminar in Labor Economics
- 358. Seminar in Labor Market and Related Analysis
- 365. Seminar in International Economics
- 366. Monetary Aspects of International Trade and Finance
- *388. Industrial Organization
- *389. Seminar in Industrial and Governmental Problems
- 397, 398. Directed Research
- 401. Seminar on the British Commonwealth
- 402. Interdisciplinary Seminar in the History of the Social Sciences

Education

Graduate work in education is offered leading to the A.M., M.Ed., M.A.T., Ed.D., and Ph.D. degrees. For each of these degrees there are specific requirements and prerequisites, all of which may be found in the official detailed *Bulletin* of the Groduate School. Departmental requirements and prerequisites for all of these degrees may be obtained from the Director of Graduate Studies.

From the courses listed below, plus several in related disciplines, a selection may be made which will meet North Carolina requirements for the advanced Principal's Certificate and the Superintendent's Certificate. (Some courses below are offered only in the summer session; see the Bulletin of the Summer Session.)

These programs are accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary and secondary school teachers and school service personnel, with the doctor's degree as the highest degree approved.

Professors

Anne H. Adams, Ed.D. (Mississippi); William H. Cartwright, Ph.D. (Minnesota); W. Scott Gehman, Jr., Ph.D. (Pennsylvania); Sherwood Githens, Jr., Ph.D. (North Carolina); Everett H. Hopkins, M.A. (Wittenburg), Director of Cooperotive Programs; Allan S. Hurlburt, Ph.D. (Cornell); Olan Lee Petty, Ph.D. (Iowa), Director of Groduote Studies; R. Baird Shuman, Ph.D. (Pennsylvania); Richard Tuthill, Ed.D. (Columbia); Henry Weitz, Ed.D. (Rutgers).

Associate Professors

Robert H. Ballantyne, Ed.D. (Washington State); Peter F. Carbone, Ed.D. (Harvard); Robert Merle Colver, Ed.D. (Kansas); Lucy T. Davis, Ed.D. (Columbia); Joseph Di Bona, Ph.D. (California at Berkeley); Anne Flowers, Ed.D. (Duke), Choirmon; Charles B. Johnson, Ed.D. (Duke); William G. Katzenmeyer, Ed.D. (Duke); David V. Martin, Ed.D. (Duke); Robert A. Pittillo, Jr., Ed.D. (Duke).

Adjunct Professor

).A. Davis, Ph.D. (Columbia).

Part-Time Instructor

Myrtle T. Swain, Ed.D. (Duke).

Lecturers

John A. Fowler, M.D. (Bowman Gray); Ila Cehman, Ed.D. (Pennsylvania); Richard H. Leach, Ph.D. (Princeton).

Courses of Instruction

- 201. Teaching and Supervision of Arithmetic
- 202. Comparative and International Education: Industrialized Nations
- 204. Educational Organization
- 206. Studies in the History of Educational Philosophy
- 207. Social History of Twentieth Century American Education
- 209. John Dewey
- 210. The Politics of Education
- *213. Elementary School Organization and Administration
- 215. Secondary Education: Principles
- 216. Secondary Education: Internship
- 217. The Psychological Principles of Education
- 218. Comparative and International Education: Developing Societies
- 219. Comparative and International Education: South Asia
- 221. Programs in Early Childhood Educa-
- 222. New Developments in Elementary School Curriculum
- *223. Teaching the Language Arts
- 224. Teaching the Social Studies in Elementary Schools
- 225. The Teaching of History and the Social Studies
- 226. Teaching Developmental and Remedial Reading in the Elementary School
- 227. The Teaching of Ceography
- 229. Formal and Informal Classroom Diagnosis of Reading Disability Cases
- 233. Improvement of Instruction in English
- 234. Secondary School Organization and Administration
- 236. Teaching Developmental and Remedial Reading in the Secondary School
- 237. The Teaching of Literature in Secondary Schools
- 238. Content, Supervision, and Administration of Reading Programs
- 239. The Teaching of Crammar, Composition, Mechanics, and Usage in Secondary School
- 240. Career Development
- 241. Foundations of Counseling and Personnel Services
- 243. Personality Dynamics
- 244. Counseling Techniques
- 245. Theories of Counseling
- 246. The Teaching of Mathematics
- Practicum in Cuidance and Counseling
 - *Offered on demand.

- 248. Practicum in Counseling
- 249. Exceptional Children
- 250, 251. Teaching Emotionally Disturbed Children: Internship
- 253. Introduction to Law and Education
- 254. Law and Higher Education
- 255. Assessment of Abilities
- 256. Classroom Assessment of Student Achievement
- 258. Assessment of Personality, Interests, and Attitudes
- 259. Problems in Law and Education
- 260. Introduction to Educational Research
- 261. Intermediate Educational Research
- 266. Basic Science for Teachers
- 268. Seminar in Contemporary Educational Criticism
- 270. The Junior/Community College
- 271. Teaching in the Junior/Community College
- 272. Teaching Communication Skills in Early Childhood Education
- 273, 274. Clinical Reading Practicum
- 276. The Teaching of High School Science
- 285. Audiovisual Aids in Education
- 291. Public and Community Relations of School
- 300. Individual Assessment of Intelligence
- 301. Advanced Individual Assessment of Cognitive Abilities
- 302. Seminar in Educational Research
- 303. Diagnostic and Educational Programs in Learning Disabilities
- 304. Internship in School Psychology
- 306. Seminar in Philosophical Analysis of Educational Concepts
- 309. Seminar on Higher Education in the United States
- 310. Seminar in Higher Educational Administration
- 311. Croup Counseling
- 313. Seminar in Education and Public Policy
- 314. Seminar in Cuidance and Counseling
- 315. Seminar in Secondary School Teaching
- 316, 317. Practicum in Higher Educational Research and Development
- 321. Educational Management
- 322. Planning and Management of Educational Facilities
- *323. Public School Finance
- 326. Educational Psychology: The Problem Child
- 332. Supervision of Instruction
- 335, 336. Seminar in School Administration

- 337. Seminar in Community College Organization
- 338. Seminar in Educational Supervision
- 339. Seminar in Curriculum
- 340. Seminar in Social Studies Curriculum
- 341. Seminar in Elementary School Curriculum
- 343. History of Higher Education in America
- 344. Research in Higher Education

- 345. Seminar in Reading Instruction and Research
- 346. Seminar in Organization of Pre-Service and In-Service Reading Programs
- 347. Student Personnel Services in Higher Education
- 348, 349. Seminar in Child Psychopathology
- 350, 351. Directed Activities in Education
- 360. Seminar on Instructional Strategies

Engineering

Aleksandar Sedmak Vesic, D.Sc., Dean (136 Engineering).

The School of Engineering offers programs of study and research leading to the degrees of Master of Science and Doctor of Philosophy with a major in biomedical, civil, electrical, or mechanical engineering. These programs are designed to provide a fundamental understanding of the engineering sciences which are based on mathematics and the physical sciences, and to develop experience in the art of engineering, which includes strong elements of intuition, imagination, and judgment. Each engineering graduate student may participate in seminars appropriate to his field of study.

A minimum of 30 units of earned graduate credit beyond the bachelor's degree is required for the M.S. degree: 12 in the major, 6 in related minor work (usually mathematics or natural science), 6 in either the major or minor subject or in other areas approved by the major department, and 6 for a research-based thesis. A non-thesis option requiring 30 units of course credit is available. Each of the departments imposes additional requirements in the exercise of this option. There is no language requirement for this degree.

A minimum of 60 units of earned graduate credit beyond the bachelor's degree is required for the Ph.D. degree in biomedical, civil, and electrical engineering, 24 in the major, 12 in related minor work (usually mathematics or natural science), 12 in either the major or minor subject or other areas approved by the major department and the Dean of the School of Engineering, and 12 for a research-based dissertation. In mechanical engineering there are no overall course requirements; each program is planned to meet individual needs. The directors of graduate studies will, during the first period of full-time registration of each doctoral aspirant, appoint a program advisory committee consisting of three members of the graduate faculty in areas relevant to the student's intended major. The preliminary examination may be either written, oral, or a combination of written and oral components, at the discretion of the committee and the department.

BIOMEDICAL ENGINEERING

Biomedical engineering is often defined as the application of the concepts and methods of the physical, mathematical, and engineering sciences to biology and medicine. The definition covers a broad spectrum ranging from formalized mathematical theory through experimental science to practical clinical applications. The purpose of the graduate program in biomedical engineering is to encourage the optimum combining of engineering and biomedical course work with an interdisciplinary research topic so that the graduates of this program can contribute at the most advanced professional level to the interdisciplinary field of biomedical engineering. The major research areas available include: biomechanics, biomedical modeling, data acquisition and processing, and electrophysiology.

Professors

Peter B. Bennett, Ph.D. (South Hampton): James H. McElhaney, Ph.D. (West Virginia); Loren Nolte, Ph.D. (Michigan): Theo Clyde Pilkington, Ph.D. (Duke), Chairman; Frederick L. Thurstone, Ph.D. (North Carolina State), Director of Graduate Studies; Myron Wolbarsht, Ph.D. (Johns Hopkins).

Associate Professors

Roger Barr, Ph.D. (Duke); Howard Clark, Ph.D. (Maryland); William E. Hammond, Ph.D. (Duke); Howard C. Wachtel, Ph.D. (New York Univ.).

Assistant Professors

Evan A. Evans, Ph.D. (California at San Diego); Olaf T. von Ramm, Ph.D. (Duke).

Courses of Instruction

- 201. Analysis of Bioelectric Phenomena
- 202. Energy and Rate in Biomedical Processes
- 203. Bioelectric Potentials and Field Theory
- 204. Real Time Measurement and Control of Heart Events
- 223. Biomedical Materials and Artificial Organs
- 225. Mechanics of Cellular Components
- 230. Biomechanics

- 233. Discrete Systems and Models of Computation
- 241, 242. Information Organization and Retrieval
- 265. Advanced Topics in Biomedical Engineering
- 311. Inverse Models
- 333. Biomedical Imaging
- 399. Special Readings in Biomedical Engineering

CIVIL ENGINEERING

A student may specialize in one of the following fields of study for either the M.S. or the Ph.D. degree: environmental engineering; geotechnical engineering and soil mechanics; mechanics of solids; materials engineering; fluid mechanics, water resources, and ocean engineering; structural engineering; and urban systems and transportation. Interdisciplinary programs combining study in some of the major areas with biological sciences, business administration, materials science, social sciences, political science, and other areas of engineering are also available. In addition, there is a special program leading to the M.S. degree in Civil Engineering and the A.M. degree in Public Policy Sciences.

With the approval of the department, a master's degree candidate in civil engineering may choose, in lieu of submitting a thesis, to complete an additional 6 units of course work plus a special project. If the candidate elects this alternative, he is expected to take a comprehensive examination over his graduate course work, and also to defend orally his special project.

Under the Reciprocal Agreement with Neighboring Universities, a student may include, as a portion of the minimum requirements, work offered by the Department of Environmental Sciences and Engineering of the University of North Carolina. Although related work usually is taken in the natural sciences or mathematics, a student whose major interest relates to the social or managerial sciences may take relevant work in these areas.

A minimum prerequisite for the graduate program in civil engineering is a basic knowledge of mathematics through linear differential equations, materials science, solid mechanics, and fluid mechanics.

Professors

Earl I. Brown, Ph.D. (Texas), J. A. Jones Professor of Civil Engineering; J. Dvorak, Ph.D. (Brown), Director of Groduate Studies; Bruce J. Muga, Ph.D. (Illinois), Choirmon; Senol Utku, Sc.D. (Massachusetts Inst. of Tech.); Aleksandar Sedmak Vesić, D.Sc. (Belgrade), J. A. Jones Professor of Civil Engineering.

Associate Professors

Aubrey E. Palmer, C.E. (Virginia); P. Aarne Vesilind, Ph.D. (North Carolina); James F. Wilson. Ph.D. (Ohio State).

Assistant Professors

larir Dajani, Ph.D. (Northwestern); Dennis Warner, Ph.D. (Stanford).

Adjunct Assistant Professor

Robert J. Drye, Jr., Ph.D. (North Carolina).

Lecturers

Robert D. Behn, Ph.D. (Harvard); Alan E. Rimer, Ph.D. (North Carolina).

Courses of Instruction

- 201. Advanced Mechanics of Solids
- 204. Plates and Shells
- 205. Elasticity
- 210. Intermediate Dynamics
- 212. Mechanical Behavior of Materials
- 215. Urban and Regional Geography
- 216. Transportation Planning and Policy Analysis
- 217. Transportation Systems Analysis
- 218. Engineering-Economic Analysis
- 221. Incompressible Fluid Flow
- 222. Open-Channel Flow
- 223. Flow Through Porous Media
- 224. Coastal and Offshore Engineering
- 225. Engineering Hydrology
- 231. Structural Engineering Analysis
- 232. Reinforced Concrete Design
- 233. Prestressed Concrete Design
- 234. Structural Design in Metals
- 235. Foundation Engineering
- 236. Earth Structures
 - *Offered on demand.

- 238. Rock Mechanics
- 241. Environmental Engineering Chemistry and Biology
- 243, 244. Sanitary Engineering Unit Operations and Process Design
- 246. Sanitary Engineering Design
- 247. Air Pollution Control
- 248. Solid Waste Management
- 250. Engineering Analysis
- 251. Systematic Structural Analysis I
- 252. Systematic Structural Analysis II
- 306. Plasticity
- *309. Advanced Dynamics
- 331. Special Problems of Systematic Structural Analysis
- 335. Mechanical Behavior of Soils
- 336. Advanced Soil Mechanics
- 337. Elements of Soil Dynamics
- 350. Advanced Engineering Analysis
- 365. Advanced Topics in Civil Engineering
- 399. Special Readings in Civil Engineering

ELECTRICAL ENGINEERING

A student may specialize in any of the following fields in working toward either the M.S. or the Ph.D. degree: solid-state materials and devices, ferromagnetics, superconducting circuits, instrumentation, electronics, microwaves and automatic control, energy conversion, digital systems, and information processing.

Recommended prerequisites for the graduate courses in electrical engineering include a knowledge of basic mathematics and physics, electromagnetic theory, and network analysis. Students in doubt about their background for enrollment in specific courses should discuss the matter with the Director of Graduate Studies. The M.S. program includes either a thesis or an oral comprehensive examination. A qualifying examination is required for the Ph.D. program. These examinations are intended to test both the breadth and depth of the student's understanding of electrical engineering. There is no foreign language requirement.

Professors

John Leslie Artley, D.Eng. (Johns Hopkins); Robert Blackburn Kerr, D.Eng. (Johns Hopkins); Peter N. Marinos, Ph.D. (North Carolina State); Loren W. Nolte, Ph.D. (Michigan); Harry Ashton Owen, Jr., Ph.D. (North Carolina State); Theo Clyde Pilkington, Ph.D. (Duke); Frederick L. Thurstone, Ph.D. (North Carolina State); Thomas George Wilson, Sc.D. (Harvard).

Associate Professors

Herbert Hacker, Ph.D. (Michigan), Choirmon and Director of Graduote Studies; William Thomas Joines, Ph.D. (Duke); Paul P. Wang, Ph.D. (Ohio State).

Assistant Professor

Rhett Truesdale George, Ph.D. (Florida).

Courses of Instruction

- 203. Random Signals and Noise
- 204. Information Theory and Communication Systems
- 205. Signal Detection and Extraction Theory 217. Masers
- 208. Digital Computer Design
- 211. Solid State Theory

- 212. Solid State Materials
- *213. Principles of Magnetism
- *215. Semiconductor Physics
- 221. Nonlinear Networks and Systems
- 222. Nonlinear Analysis

- 224. Integrated Electronics: Analog and Digital
- 225. Semiconductor Electric Circuits
- 227. Network Synthesis
- 241. Linear Systems
- 242. Modern Control and Dynamic Systems
- 243. Advanced Linear Systems Theory
- 265. Advanced Topics in Electrical Engineering
- 266. Biofeedback Systems
- 271. Electromagnetic Theory
- 272. Applications of Electromagnetic Theory
- 297-298. Thesis Research
- 304. Estimation, Filtering, and Random Systems
 - *Offered on demand.

- 305. Advanced Applications of Statistical Decision Theory
- 306. Adaptive Detection and Communication Systems
- 307. Advanced Digital Systems I
- 308. Advanced Digital Systems II
- *313. Magnetic Processes in Materials
- 321. Nonlinear Magnetic and Semiconductor Circuits
- 324. Nonlinear Oscillations in Physical Systems
- 342. Optimal Control Theory
- 345. Stochastic Control Systems
- *371. Advanced Electromagnetic Theory
- *373. Selected Topics in Field Theory
- 399. Special Readings in Electrical Engineering

MECHANICAL ENGINEERING AND MATERIALS SCIENCE

Graduate study is available to students seeking the M.S. and Ph.D. degrees with a major in either mechanical engineering or materials science. Departmental programs of advanced study and research include control systems, dynamics and vibrations, energy conversion, fluid mechanics, heat and mass transport, mechanical design, thermodynamics, physical metallurgy, corrosion, fracture, and polymer science. The faculty cooperates with faculty members from a number of other departments and schools to establish interdisciplinary research projects and programs of study in areas which include applied mechanics, biomechanics, biomedical materials, environmental quality and control, interaction of fields and materials, ocean engineering, systems engineering, engineering and public policy, and transportation systems.

The program includes the opportunity for experimental work as well as theoretical study. A major emphasis is placed upon developing the research ability of the student and relating the program to the evolving needs of modern engineering practice.

Professors

Jack Bartley Chaddock, Sc.D. (Massachusetts Inst. of Tech.), Chairmon; Devendra P. Garg. Ph.D. (New York Univ.); Charles Morgan Harman, Ph.D. (Wisconsin); Van Leslie Kenyon, Jr., M.M.E. (New York Univ.); George Wilbur Pearsall, Sc.D. (Massachusetts Inst. of Tech.).

Associate Professors

Howard G. Clark, Ph.D. (Maryland); Franklin H. Cocks, Ph.D. (Massachusetts Inst. of Tech.); Ernest Elsevier, M.S.M.E. (Georgia Inst. of Tech.); Marion LaVerne Shepard, Ph.D. (Iowa State); Donald Wright, Ph.D. (Purdue).

Assistant Professors

Gale Herbert Buzzard, Ph.D. (North Carolina State), Director of Groduote Studies; Edward Shaughnessy, Jr., Ph.D. (Virginia).

Adjunct Professor

Verne L. Roberts, Ph.D (Illinois).

Adjunct Associate Professor

George Mayer, Ph.D. (Massachusetts Inst. of Tech.).

Courses of Instruction

- 202. Theoretical Thermodynamics
- 210. Intermediate Dynamics
- 211. Theoretical and Applied Polymer Science
- 213. Advanced Materials Science
- 214. Corrosion and Corrosion Control
- 215. Failure Analysis and Prevention
- 221. Compressible Fluid Flow
- 222. Heat Transfer
- 224. An Introduction to Turbulence
- 226. Intermediate Fluid Mechanics
- 230. Modern Control and Dynamic Systems
- 231. Systems Response and Control
- 232. Nonlinear Analysis

233. Fluid Control Systems

235. Advanced Mechanical Vibrations

236. Engineering Acoustics and Noise Control

251. Refrigeration and Cryogenics

255. Energy Conversion

265. Advanced Topics in Mechanical Engineering

270. Theory of Lubrication and Bearing Design

280. Nuclear Reactor Power Cycles

300. Advanced Projects in Mechanical Engineering

302. Advanced Thermodynamics

309. Advanced Dynamics

311. Behavior of Crystalline Solids

322. Mechanics of Viscous Fluids

323. Convective Heat Transfer

324. Conduction and Radiation Heat Transfer

327. Homogeneous Turbulence

328. Turbulent Shear Flow

331. Nonlinear Control Systems

333. Seminar in Control Systems

335. Analytical Methods in Vibrations372. Finite Element Techniques in Design

399. Special Readings in Mechanical

Engineering

English

The department offers graduate work leading to the A.M., M.A.T., and Ph.D. degrees. A statement of the requirements for the Ph.D. degree may be obtained from the Director of Graduate Studies. The department requires a reading knowledge of one modern foreign language for the A.M. degree and two languages, determined by the student's committee, for the Ph.D. degree.

Professors

Carl Anderson, Ph.D. (Pennsylvania); Louis J. Budd, Ph.D. (Wisconsin), Choirmon; Edwin H. Cady, Ph.D. (Wisconsin); Bernard I. Duffey, Ph.D. (Ohio State); Oliver W. Ferguson, Ph.D. (Illinois); Holger O. V. Nygard, Ph.D. (California), Director of Groduote Studies; Dale B. J. Randall, Ph.D. (Pennsylvania); Edmund Reiss, Ph.D. (Harvard); Clyde de Loache Ryals, Ph.D. (Pennsylvania); Grover C. Smith, Ph.D. (Columbia); Arlin Turner, Ph.D. (Texas); George W. Williams, Ph.D. (Virginia).

Associate Professors

John Clubbe, Ph.D. (Columbia); Gerald E. Gerber, Ph.D. (Northwestern); Wallace Jackson, Ph.D. (Pennsylvania); Buford Jones, Ph.D. (Harvard); Elgin Mellown, Ph.D. (London); Gerald Monsman, Ph.D. (Johns Hopkins); Victor H. Strandberg, Ph.D. (Brown).

Assistant Professors

Ronald Richard Butters, Ph.D. (Iowa); A. Leigh DeNeef, Ph.D. (Pennsylvania State).

Courses of Instruction

207, 208. History of the English Language

209. Present-Day English

210. Old English Literary Tradition

212. Middle English Literary Tradition

215, 216. Chaucer

221. English Prose of the Sixteenth Century

222. English Non-Dramatic Poetry of the Sixteenth Century

223. Spenser

224. Shakespeare

225, 226. Tudor and Stuart Drama, 1500-1642

229, 230. English Literature of the Seventeenth Century

232. Milton

234. English Drama, 1642-1800

235, 236. The Eighteenth Century

241, 242. English Literature of the Early Nineteenth Century

245, 246. English Literature of the Later Nineteenth Century

251, 252. English Literature of the Twentieth Century

263, 264. American Literature, 1800-1865

267, 268. American Literature, 1865-1915

270, 271. Southern Literature

275, 276. American Literature Since 1915

280. Introduction to Folklore

285. Literary Criticism

287. Recent Critical Thought

289. Literary Biography

310. Beowulf

312. Studies in Middle English Literature

315. Studies in Chaucer

318. Medieval Romances

320. Studies in Renaissance English Prose

324. Studies in Shakespeare

325. Studies in the English Drama of the Sixteenth and Seventeenth Centuries

329. Studies in the Metaphysical Poets

330. Studies in Dryden and His Age

337. Studies in Swift

338. Samuel Johnson's Literary Criticism and Related Topics

339. The Eighteenth Century Novel

341. Studies in English Romanticism

343. Studies in Coleridge and Carlyle

347. Studies in Victorian Poetry

- 348. Studies in Victorian Fiction
- 349. Studies in Ninteenth Century Nonfictional Prose
- 353. Studies in British Poetry of the Twentieth Century
- 361. Studies in a Major American Author of the Early Nineteenth Century
- 362. Studies in a Major American Author of the Later Nineteenth Century
- 364 Hawthorne and Melville
- 368. Studies in American Realistic Fiction
- 369. Studies in American Humor
- 376. Studies in Twentieth Century American Literature
- 380. The Traditional Ballad and Folksong
- 383. Textual Criticism
- 387. Special Topics Seminar
- 100. English for Foreign Students

Forestry and Environmental Studies

Major and minor work is offered in the natural and social aspects of forestry and related areas of natural resources leading to the A.M., M.S., and Ph.D. degrees. Work for these degrees may be pursued in the biological science areas of dendrology, wood anatomy, forest ecology, tree physiology, biochemistry, forest entomology, and forest pathology; in the environmental science areas of forest soils, meteorology, and hydrology; in resource economics; and in forest mensuration, biometry, and operations research. College graduates who have had specialized training in professional forestry or the related basic areas of the natural or social sciences will be considered for admission. Students will be restricted to the particular fields of specialization for which their academic background qualifies them. For information on professional training in forestry, the Bulletin of the School of Forestry should be consulted.

The specific degrees available in forestry and related natural resources through the Graduate School are: the Master of Arts (with or without a thesis), Master of Science (with a thesis), and the Doctor of Philosophy. Students majoring in forestry may be required to demonstrate satisfactory knowledge of one or two foreign languages for the Doctor of Philosophy degree.

Professors

Roger Fabian Anderson, Ph.D. (Minnesota), Director of Graduate Studies; Robert Lloyd Barnes, Ph.D. (Duke); Henry Hellmers, Ph.D. (California at Berkeley); Kenneth Richard Knoerr, Ph.D. (Yale); Jane Philpott, Ph.D. (State Univ. of Iowa); Charles William Ralston, Ph.D. (Duke), Dean of the School of Forestry; William James Stambaugh, Ph.D. (Yale).

Associate Professor

David O. Yandle, Ph.D. (North Carolina State).

Adjunct Associate Professors

Edgar W. Clark, Ph.D. (California at Berkeley); Charles S. Hodges, Jr., Ph.D. (Ceorgia); Louis John Metz, Ph.D. (Duke); Fred M. Vukovich, Ph.D. (St. Louis).

Assistant Professors

Frank J. Convery, Ph.D. (State Univ. of New York); R. Rajagopal, Ph.D. (Michigan); Arthur L. Sullivan, Ph.D. (Cornell); James E. Wuenscher, Ph.D. (Wisconsin).

BIOLOGICAL SCIENCE

Courses of Instruction

- 201. Tree Physiology
- 205. Tree Crowth and Development
- 206. Anatomy of Woody Plants
- 207. Chemistry of Woody Tissues
- 208. Physiology of Wood Formation
- 222. Biology of Forest Insects and Diseases
- 223. Forest Pathology
- 225. Chemical Aspects of Forest Protection
- 230. Forest Entomology
- 233. Ceneral Entomology
- 241. Dendrology
- 243. Natural Resource Ecology

- 277. Seminar in Natural Resource Allocation and Efficiency
- 292. Microtechnique of Woody Tissue
- 305. Forest Tree Biochemistry
- 321. Phytopathological Technique in Forestry
- 322. Microbiology of Forest Soils
- 331. Toxicology of Insecticides
- 332. Ecology of Forest Insects
- 335. Entomological Research Techniques
- 337. Ecological Analysis for Environmental Management

340. Ecology and Land Use Planning

341. Ecological Principles in Environmental Management

346. Seminar in Environmental Policy

347, 348. Natural Resource Ecology—Environmental Management Seminar

354. Quantitative Analysis of Ecological Environmental Systems

385. Seminar in Forest Protection

ENVIRONMENTAL SCIENCE

203. General Meteorology

204. Microclimatology 215. Air Pollution Meteorology

216. Watershed Hydrology217. Environmental Instrumentation

261. Forest Soils

304. Atmospheric Turbulence and Diffusion

306. Dynamics of Local Atmospheric Motion

342. Hydrologic Processes

344. Micrometeorology 362. Forest Soil Physics

364. Soil Classification and Mapping

366. Forest Soil Fertility

RESOURCE ECONOMICS AND POLICY

269. Resource Economics and Policy

270. Economics of Forestry

273. Economics and Environmental Quality

277. Seminar in Natural Resource Allocation and Efficiency

378. Seminar in Forest Economics

STATISTICS AND OPERATIONS RESEARCH

250. Biometry

251. Theory and Methods for Sampling Biological Populations

253. Computer Science in Natural Resources

258. Operations Research

352. Theory and Applications of Linear Statistical Models

353. Design and Analysis of Experiments

354. Quantitative Analysis of Ecological and Environmental Systems

SPECIAL STUDIES AND RESEARCH

299. Special Studies in Forestry

301, 302. Advanced Studies in Forestry

357, 358. Research in Forestry

368. Field Seminars

The University Program in Genetics

The University Program in Genetics provides a coherent course of study in all facets of biology related to genetics. Graduate students registered in any of the biological sciences departments may apply to the faculty of the genetics program to pursue study and research leading to an advanced degree. It would be helpful if applicants for admission to the Graduate School indicated their interest in the genetics program at the time of application. Request for information describing more completely the research interests of the staff, facilities, and special stipends and fellowships should be addressed to the Director, Genetics Program (Nanaline H. Duke Building, Room 151).

Professors

D. Bernard Amos, M.D. (Guys Hospital, London); Nicholas Gillham, Ph.D. (Harvard); Samson R. Gross, Ph.D. (Columbia), Director; Walter R. Guild, Ph.D. (Yale).

Associate Professors

Janis Antonovics, Ph.D. (Wales); John E. Boynton, Ph.D. (California at Davis); Shelia J. Counce, Ph.D. (Edinburgh); William N. Kelley, M.D. (Emory); Calvin L. Ward, Ph.D. (Texas); Robert E. Webster, Ph.D. (Duke).

Assistant Professors

Dwight H. Hall, Ph.D. (Purdue); Philip D. Harriman, Ph.D. (California at Berkeley); Nicholas Kredich, M.D. (Michigan); Frances E. Ward, Ph.D. (Brown).

Courses of Instruction

204. Introductory Genetics216. Molecular Genetics

280. Principles of Genetics

282. Experimental Genetics

284. Current Topics in Genetic Mechanisms

285. Population Genetics

286. Evolution

287. Quantitative Genetics

288. Seminar on the Role of the Cell in Development and Heredity

336. Immunogenetics

351-352. Genetics Seminar

Geology

The Department of Geology offers graduate work leading to the M.S. degree. An undergraduate degree in geology is not a prerequisite for graduate studies, but a student must have had or must take a summer field geology course (or equivalent experience), mineralogy, sedimentary rocks, stratigraphy, paleontology, and structural geology. In addition he must have had one year of college chemistry, one year of college physics, and mathematics through calculus.

Graduate courses in the Department of Geology are designed to provide specialized training in the fields of oceanography, sedimentology, stratigraphy, paleontology, and low-temperature mineralogy. A thesis, but no foreign language, is required

for the M.S. degree.

Professors

S. Duncan Heron, Jr., Ph.D. (North Carolina), Chairman; Orrin H. Pilkey, Ph.D. (Florida State).

Associate Professors

William J. Furbish, M.S. (Wisconsin); George W. Lynts, Ph.D. (Wisconsin); Ronald D. Perkins, Ph.D. (Indiana), Director of Graduote Studies.

Lecturer

Susan R. Shuart, Ph.D. (Pennsylvania State).

Courses of Instruction

205. Geological Oceanography

206. Principles of Geological Oceanography

208. Shallow-Marine Geology

211. Stratigraphic Principles and Applications

212. Facies Analysis

213. Sedimentology

214. Sediments in Thin Section

222. Sedimentary Minerals

*229. Economic Geology

230. Principles of Structural Geology

233. Geochemistry

*Offered on demand.

241-242. Invertebrate Paleontology

243-244. Micropaleontology

247. Paleoecology

*300. Seminar in Oceanography

305. Seminar in Continental Drift and Global Tectonics

*310. Seminar in Stratigraphy

*312. Seminar in Sedimentology

*320. Seminar in Mineralogy

*330. Seminar in Geochemistry

*340. Seminar in Paleontology

*350. Seminar in Geomathematics

*371, 372. Advanced Topics in Geology

Germanic Languages and Literature

The Department of Germanic Languages and Literature offers graduate work leading to the A.M. degree. Students who expect a major in German should have had sufficient undergraduate courses in Germanic languages to enable them to proceed to more advanced work.

Students who wish to take courses in German as a related field should ordinarily have completed a third-year course (in exceptional cases, a second-year) of college German with acceptable grades.

Professors

Leland R. Phelps, Ph.D (Ohio State), Choirman ond Director of Groduote Studies; Herman Salinger, Ph.D. (Yale).

Associate Professors

Frank Borchardt, Ph.D. (Johns Hopkins); Richey Novak, Ph.D. (Johns Hopkins).

Assistant Professors

A. Tilo Alt, Ph.D. (Texas); Henry R. Stern, Ph.D. (Northwestern).

Courses of Instruction

201, 202. Goethe

203, 204. Eighteenth Century

*205, 206. Middle High German

*207, 208. German Romanticism

209, 210. Kleist, Grillparzer, and Hebbel

211, 212. Nineteenth Century Literature

213. Heinrich Heine

214. The Twentieth Century

*215. Seventeenth Century Literature

216. History of the German Language
*Offered on demand.

*217. Renaissance and Reformation Literature

*218. The Teaching of German

*219. Applied Linguistics

*232. Criticism and Literary Theory

*233. Advanced Composition

*301. Gothic

*316. The Austrian Novel from 1930 to the Present

321, 322. Germanic Seminar

——. Graduate Reading Course.

Health Administration

Graduate study leading toward preparation for a career in the administration of all types of health organizations and programs is offered through a twenty month academic program that leads to the M.H.A. degree. Students without previous administrative experience in the health field are urged to undertake a twelve month administrative residency following graduation. This residency is a period of varied administrative experience that is conducted under faculty supervision and is individually designed around each student's interests. For students without previous administrative experience, the residency should be considered an integral part of the M.H.A. program. Admission to this program is based upon suitability of the candidate to assume leadership roles in the organization and management of the delivery of health services, as well as on capability for graduate study. As requirements for participation differ somewhat from the basic admission requirements of the Graduate School, interested individuals should obtain complete information about the program directly from the Chairman.

Professor

Stuart M. Sessoms, M.D. (Med. Coll. of Virginia).

Associate Professors

Boi Jon Jaeger, Ph.D. (Duke), Choirmon; Wilma A. Minniear, M.S. (Case Western Reserve); Louis E. Swanson, A.B. (Hamline).

Assistant Professors

Thomas J. Delaney, M.S. (U.S. Naval Postgraduate School); Donald S. Smith, II, M.H.A. (Minnesota), Director of Groduote Studies.

Adjunct Associate Professors

Elizabeth J. Coulter, Ph.D. (Radcliffe); Richard H. Peck, M.H.A. (Duke).

Adjunct Assistant Professor

Arnold D. Kaluzny, Ph.D. (Michigan).

Lecturers

Jeff H. Steinert; David G. Warren, LL.B. (Duke); Robert G. Winfree, M.A. (Iowa).

Research Associate

David J. Falcone, Ph.D. (Duke).

Courses of Instruction

301. The Health System and Its Environment

312. Comparative Health Systems

314. Social Dimensions of Health Services

322. Public Policy and Health Care

324. Institutional Health Services

326. Health Economics

331-332. Planning Health Services

335. Ambulatory Health Services

341, 342. Case Studies in Health Administration 346. Community Health Services

348. Legal and Regulatory Constraints on Health Services

350. The Administrative Residency (Basic)

360. Seminars in Health Administration

371, 372. Directed Research

380. Administrative Residency (Advanced)

History

The Department of History offers graduate work leading to the A.M. and Ph.D. degrees. The candidate for the A.M. degree must have a reading knowledge of at least one ancient or modern foreign language related to his program of study and have completed successfully a substantial research paper, normally the product of a year's seminar or two semester-courses. The paper must be approved by two readers—the supervising professor and a second professor from the graduate faculty. Students anticipating a May degree must have their papers read and approved by April 15; those anticipating a September degree must have their papers read and approved by August 15.

A candidate for the degree of Doctor of Philosophy is required to prepare himself for examination in four fields. Three shall ordinarily be history. The choice of fields is determined in consultation with the student's supervisor and the Director of Graduate Studies. The department offers graduate instruction in the fields of Africa, Afro-American history, ancient history, medieval and early modern Europe, modern Europe, American history, Britain and the Commonwealth, imperial Russia, modern Russia, Latin America, South Asia, traditional China, modern China, modern Japan. military history, history of science, and history of medicine. The candidate for the Ph.D. degree usually must have a reading knowledge of two foreign languages, but in certain cases where the candidate's supervisor and the Director of Graduate Studies approve, and where the candidate's research for the dissertation would appreciably benefit, an alternative to the second language may be accepted. This alternative would ordinarily take the form of successfully completed formal training in an auxiliary discipline (such as statistics or a course in one of the other social sciences, with an emphasis upon methodology) of from 3 to 6 units, or their equivalent, depending on the student's program. It also must be in addition to any previous undergraduate work in the discipline. The requirement, whether satisfied by two languages or by one language and an alternative, must be met prior to the preliminary examination.

Students may receive credit for either semester of a hyphenated course without taking the other semester if they obtain written permission from the instructor and the Director of Graduate Studies.

Professors

Frances Dorothy Acomb. Ph.D. (Chicago); John R. Alden, Ph.D. (Michigan), Jomes B. Duke Professor of History; Robert F. Durden, Ph.D. (Princeton), Choirmon: Arthur B. Ferguson, Ph.D. (Cornell); Irving B. Holley, Jr., Ph.D. (Yale); Frederic Hollyday, Ph.D. (Duke); Warren Lerner, Ph.D. (Columbia); John F. Oates, Ph.D. (Yale); Herold T. Parker, Ph.D. (Chicago); Richard A. Preston, Ph.D. (Yale), William K. Boyd Professor of History; Theodore Ropp, Ph.D. (Harvard); Anne Firor Scott, Ph.D. (Radcliffe), Director of Groduote Studies; William E. Scott, Ph.D. (Yale); Bernard S. Silberman, Ph.D. (Michigan); John J. TePaske, Ph.D. (Duke); Richard L. Watson, Ph.D. (Yale); Charles Young, Ph.D. (Cornell).

Associate Professors

Gert H. Brieger, M.D. (California at Los Angeles), Ph.D. (Johns Hopkins); John Cell, Ph.D. (Duke); William Chafe, Ph.D. (Columbia); Calvin D. Davis, Ph.D. (Indiana); Gerald Hartwig, Ph.D. (Indiana); Seymour Mauskopf, Ph.D. (Princeton); Martin Miller, Ph.D. (Chicago); Sydney Nathans, Ph.D. (Johns Hopkins); Ronald Witt, Ph.D. (Harvard).

Assistant Professors

Charles W. Bergquist, Ph.D. (Stanford); Philip B. Calkins, Ph.D. (Chicago); Arif Dirlik, Ph.D. (Rochester); Raymond Gavins, Ph.D. (Virginia); Lawrence C. Goodwyn, Ph.D. (Texas).

Visiting Associate Professor

Barry M. Gough, Ph.D. (London).

Courses of Instruction

- 201-202. Aspects of Change in Pre-Revolutionary Russia
- 209-210. Selected Topics in Afro-American History, 1619-Present
- 212. Recent Interpretations of United States History
- 215-216. The Diplomatic History of the United States

221. Problems in the Economic and Social History of Europe, 1200-1700

222. Problems in European Intellectual History, 1250-1550

223. 224. The Old Regime, the Enlightenment, and the French Revolution

227-228. Recent U.S. History: Major Political and Social Movements

229. Recent Interpretations of Modern European History

231, 232. Problems in the History of Spain and the Spanish Empire

237. Europe in the Early Middle Ages

238. Europe in the High Middle Ages

240. Aspects of Traditional and Modern African Culture

241-242. Modernization and Revolution in China

247. History of Modern India and Pakistan, 1707-1857

248. History of Modern India and Pakistan. 1857 to the Present

249-250. Social and Intellectual History of the United States

253-254. Modern European Intellectual History

255-256. Problems in African History

260. Economic History of Japan

261-262. Problems in Soviet History

263-264. American Colonial History and the Revolution, 1607-1789

265, 266. Problems in Modern Latin American History

267-268. From Medieval to Early Modern England

269-270. British History, Seventeenth Century to the Present

273-274. Topics in the History of Science 277. The Coming of the Civil War in the

United States, 1820-1861 278. The Civil War in the United States and Its Aftermath, 1861-1900

279. Oral History

280. Historiography

283-284. Political and Social Change in the United States, 1789-1860

287-288. History of Modern Japan

296. Canada from the French Settlement to the Present

297. The British Empire in the Nineteenth Century (from 1783)

298. The Commonwealth in the Twentieth Century

307-308. Seminar in United States History

317-318. Seminar in the History of Western Europe

371-372. Research Seminars

401. Seminar on the British Commonwealth

351.1-352.1. Military History

351.2-352.2. Modern European Intellectual and Cultural History

351.10-352.10. Medieval Europe

351.15-352.15. The English Renaissance 351.25-352.25. Central Europe, 1849-1914

351.30-352.30. European Diplomatic History Since 1870

351.31-352.31. Twentieth Century Europe

351.40-352.40. City and Frontier in United States History

351.45-352.45. Reform and Politics in Nineteenth Century America

351.46-352.46. Twentieth Century United States to 1941

351.47-352.47. Diplomatic History of the United States

351.51-352.51. Hispanic America

351.60-352.60. Soviet History

351.65-352.65. Modernization and Revolution in China

351.70-352.70. Modern South Asia

351.74-352.74. American Colonial History and the Revolution

312. Seminar in the Teaching of History in College

314. Historical and Social Science Methodology

399. Independent Study

The University Program in Marine Sciences

Training in the marine sciences at Duke University includes marine biology, marine geology, and oceanography. The departments which are chiefly concerned are Botany, Chemistry, Geology, and Zoology.

A graduate student working in the marine sciences will take his degree under the auspices of one of the above departments and must, therefore, meet the requirements of that department. During the first part of his training he will usually take courses on the Durham campus during the academic year and enroll in more specialized courses in the marine sciences at the Duke University Marine Laboratory during the summer. After the completion of his course work and preliminary examination (for doctoral candidates) he may, with approval of his major professor, request space for thesis research at the Marine Laboratory.

Persons interested in graduate work in marine sciences should apply through one of the appropriate departments. Forms may be obtained from the Graduate School.

Applications for summer courses at the Laboratory should be addressed to the Director, Duke University Marine Laboratory, Beaufort, North Carolina 28516. The form may be obtained from the Duke University Marine Loboratory Bulletin. The application for enrollment in the Duke University summer session should be accompanied by transcripts of undergraduate and graduate work. Applications should be received before March 10.

The following courses are offered during the summer at Beaufort. See the Duke University Marine Laboratory Bulletin for the current schedule of courses.

Professors

Cazlyn Green Bookhout, Ph.D. (Duke); John Costlow, Ph.D. (Duke), Director; Terry W. Johnson, Jr., Ph.D. (Michigan); *Orrin Pilkey, Ph.D. (Florida State).

Associate Professors

Richard T. Barber, Ph.D. (Stanford); *Richard B. Searles, Ph.D. (California at Berkeley).

Assistant Professors

Rodger W. Baier, Ph.D. (Washington); William F. Blankley, Ph.D. (California at San Diego); Richard B. Forward, Ph.D. (California at Santa Barbara); John Gutknecht, Ph.D. (North Carolina); J. Bolling Sullivan, Ph.D. (Texas); John Sutherland, Ph.D. (California at Berkeley).

*In residence at the Marine Laboratory during the summer only.

Courses of Instruction

202. Phytoplankton Systematics

S202. Introduction to Comparative Behavior

203. Marine Ecology

204. Marine Microbiology

205. Geological Oceanography

211. Marine Phycology

212. Membrane Physiology and Osmoregulation

214. Biological Oceanography

230. Chemical Pollution of Coastal Waters

240. Chemical Oceanography

250. Physiological Ecology of Marine Animals

274. Marine Invertebrate Zoology

276. Comparative and Evolutionary Biochemistry

278. Invertebrate Embryology

Mathematics

Graduate work in the Department of Mathematics is offered leading to the M.S., A.M., and Ph.D. degrees. The student, in his undergraduate work, must have had courses in differential and integral calculus, and at least 6 semester hours of other courses in mathematics on the junior or senior level.

The department offers a program in applied statistics with a minor in computer science leading to the M.S. degree. The program consists of 24 units of graded course work plus a thesis project involving the use of the computer.

All A.M. and Ph.D. candidates are required to pass a comprehensive examination in the areas of algebra, analysis, and topology. Students will usually take the comprehensive examination after completing their first year of graduate study and just prior to the start of their second year.

The A.M. degree with a major in mathematics is awarded primarily on the basis of scholarship. It requires 30 units of graded course work in addition to the comprehensive examination. A thesis may be substituted for 6 units of course work only in unusual circumstances.

The Ph.D. degree in mathematics is awarded upon the demonstration of ability and training in research. The original dissertation, therefore, is the most important of the formal requirements for the degree.

All A.M. and Ph.D. candidates are expected to participate in a proseminar during their first year of graduate study. The purpose is to provide experience in organizing and presenting material to their peers.

Since a reading knowledge of French, German, and Russian is highly desirable for a student of mathematics, the Ph.D. candidate should satisfy the requirement in two of these languages as early as possible. The department offers departmentally administered language examinations as an alternative to the ETS examinations.

Professors

Leonard Carlitz, Ph.D. (Pennsylvania), James B. Duke Professor of Mothemotics; Francis Joseph Murray, Ph.D. (Columbia); Michael C. Reed, Ph.D. (Stanford); Joseph Robert Shoenfield,

Ph.D. (Michigan); Seth L. Warner, Ph.D. (Harvard), Choirmon; Morris Weisfeld, Ph.D. (Yale), Director of Groduote Studies.

Associate Professors

Donald Stanley Burdick, Ph.D. (Princeton); Richard Earl Hodel, Ph.D. (Duke); Joseph W. Kitchen, Jr., Ph.D. (Harvard); David P. Kraines, Ph.D. (California at Berkeley); Lawrence Carlton Moore, Jr., Ph.D. (California Inst. of Tech.); Richard A. Scoville, Ph.D. (Yale); David A. Smith, Ph.D. (Yale); Olaf Patrick Stackelberg, Ph.D. (Minnesota).

Assistant Professors

Jack A. Lees, Ph.D. (Chicago); Barry MacKichan, Ph.D. (Stanford); William Michael O'Fallon, Ph.D. (North Carolina).

Visiting Professor

Richard Beals, Ph.D. (Yale).

Adjunct Associate Professor

Jagdish Chandra, Ph.D. (Rensselaer).

Courses of Instruction

204. Geometry for Teachers

206. Introduction to Stochastic Processes

207, 208. Introduction to Algebraic Structures

217, 218. Intermediate Analysis

221, 222. Numerical Analysis

223. Numerical Analysis III

*227, 228. Theory of Numbers

*229, 230. Algebraic Numbers 231. Applications of Graph Theory

*234. Sample Designs

235, 236. Algebra

244. Analysis of Variance

*245, 246. Combinatorial Analysis

*247, 248. Arithmetic of Polynomials

256. Orientation for Applied Mathematics

260. Design of Experiments

*262. Non-Parametric Statistics

265, 266. Homological Algebra and its Applications

269, 270. Recursive Function Theory

271, 272. Introductory Topology

273, 274. Algebraic Topology

275, 276. Probability

284. Least-Squares Analysis of Linear Models

285. Applied Mathematical Methods I

286. Applied Mathematical Methods II

*Offered on demand.

*287, 288. Foundations of Mathematics

290. Stochastic Processes

291, 292. Analysis I, II

293. Multivariate Statistics

*295. Mathematical Foundations of Statistical Inference

297, 298. Axiomatic Set Theory

*303, 304. Advanced Theory of Numbers

325, 326. Analysis III, IV

*327, 328. Partial Differential Equations

*329, 330. Theory of Distributions

*331, 332. Advanced Topics in Complex Variables

*333, 334. Analytic Theory of Numbers

*335, 336. Topics in Algebra

*343, 344. Differential Equations

*353, 354. Topics in Analysis

361, 362. Hilbert Space

*371, 372. Dimension Theory

375. Advanced Point Set Topology

*377, 378. Topics in Topology

*383, 384. Lie Groups and Algebras

*392. Nuclear Spaces

*393. Topological Groups

*394. Topological Rings

*395, 396. Topological Algebra

*397, 398. Seminar in Algebra and Number Theory

Medieval and Renaissance Studies

A graduate Program in Medieval and Renaissance Studies is administered by the Duke University Committee on Medieval and Renaissance Studies. A participating student is based in one of the regular departments and fulfills the Ph.D. requirements for that discipline, and in addition he takes a program of electives which will aid his interdisciplinary competence in the medieval or Renaissance area (or some intellectually valid combination of the two). Such a program includes a choice from the fields of art, history, language and literature, history, philosophy, and religion. In other words, a student is enabled to minor in medieval and Renaissance studies.

Inquiries should be addressed to the Chairman of the Duke University Committee on Medieval and Renaissance Studies, P.O. Box 466, Duke Station.

ART

248. Florentine Painting during the 233. Early Medieval Architecture Renaissance 234. Romanesque Sculpture 253. Studies in Italian Renaissance Sculpture 237. French Renaissance Art 255, 256. Iconological Problems 245. 246. Problems in Italian Renaissance Painting LATIN 306. Latin Seminar VI 221. Medieval Latin I 312. Proseminar in Latin Palaeography 222. Medieval Latin II 327. Seminar in Byzantine History 225. Palaeography 305. Latin Seminar V **ENGLISH** 207, 208. History of the English Language 232. Milton 310. Beowulf 210. Old English Literary Tradition 312. Studies in Middle English Literature 212. Middle English Literary Tradition 215, 216. Chaucer 315. Studies in Chaucer 221. English Prose of the Sixteenth Century 318. Medieval Romances 222. English Nondramatic Poetry of the Six- 320. Studies in Renaissance English Prose teenth Century 324. Studies in Shakespeare 325. Studies in the English Drama of the Six-223. Spenser teenth and Seventeenth Centuries 224. Shakespeare 225, 226. Tudor and Stuart Drama, 1500-1642 329. Studies in the Metaphysical Poets 383. Textual Criticism 229. English Literature of the Seventeenth Century **GERMAN** 205, 206. Middle High German 216. History of the German Language 217. Renaissance and Reformation Literature 215. Seventeenth Century Literature

HISTORY

221. Problems in the Economic and Social 238. Europe in the High Middle Ages 267-268. From Medieval to Early Modern History of Europe, 1290-1700 England 222. Problems in European Intellectual 351.10-352.10. Medieval Europe 351.15-352.15. The English Renaissance History, 1250-1550 237. Europe in the Early Middle Ages

PHILOSOPHY

218. Medieval Philosophy

RELIGION

- 236. Luther and the Reformation in Germany 336. Christian Mysticism in the Middle Ages 241. Problems in Reformation Theology 338. Calvin and the Reformation in Switzer-
- 251. The Counter-Reformation and the Deland velopment of Catholic Dogma 339. The Radical Reformation
- 344. Zwingli and the Origins of Reformed 334. Theology and Reform in the Later Theology Middle Ages

FRENCH

213, 214. French Literature of the Seventeenth 225. French Prose of the Sixteenth Century Century 226. French Poetry of the Sixteenth Century 219. Old French Literature 311, 312. French Seminar (Medieval and Re-224. History of the French Language naissance Topics)

ITALIAN

284. Dante 288. The Renaissance

SPANISH

251. The Origins of Spanish Prose Fiction 253. The Origins of the Spanish Theater 252S. Spanish Lyric Poetry Before 1700 257. Old Spanish

258. Medieval Literature

265. Cervantes

266. Drama of the Golden Age

321, 322. Hispanic Seminar (Medieval and Renaissance Topics)

Microbiology and Immunology

The department offers graduate work leading to the Ph.D. degree. Specialization is possible in molecular virology, viral oncology, cell biology, microbial physiology, immunochemistry, immunogenetics, cancer immunology, and general immunology.

Undergraduate preparation in biochemistry and physical chemistry is required. A brochure describing the Ph.D. program, prerequisites for admission, and research in the department can be obtained by writing the Director of Graduate Studies, Box 3020, Duke Medical Center.

Professors

D. Bernard Amos. M.D. (Guys Hospital, London). Jomes B. Duke Professor of Immunology; Richard O. Burns, Ph.D. (Illinois); Eugene D. Day. Ph.D. (Delaware); Wolfgang Karl Joklik, D.Phil. (Oxford), James B. Duke Prafessor of Microbiology and Immunology and Chuirman; Richard S. Metzgar, Ph.D. (Buffalo); Suydam Osterhout, M.D. (Duke), Ph.D. (Rockefeller Inst.); Robert W. Wheat, Ph.D. (Washington); Hilda Pope Willett, Ph.D. (Duke), Director of Groduote Studies.

Associate Professors

C. Edward Buckley, III, M.D. (Duke); Rebecca Buckley, M.D. (North Carolina); Jack L. Nichols, Ph.D. (Alberta); Wendell Rosse, M.D. (Chicago); H. F. Seigler, M.D. (North Carolina); Ralph E. Smith, Ph.D. (Denver); Thomas C. Vanaman, Ph.D. (Duke); Frances E. Ward, Ph.D. (Brown); Hans Zweerink, Ph.D. (Cornell).

Assistant Professors

Dani P. Bolognesi, Ph.D. (Duke); Peter Cresswell, Ph.D. (London Univ.); Jeffrey R. Dawson, Ph.D. (Case Western Reserve); David J. Lang, M.D. (Harvard); Peter K. Lauf, Ph.D. (Freiburg); Nelson Levy, M.D. (Columbia), Ph.D. (Duke); David W. Scott, Ph.D. (Yale); Ralph Snyderman, M.D. (New York Downstate Medical Center).

Courses of Instruction

212, 213. Research Techniques in Microbiology and Immunology

Molecular and Cellular Basis of Development

219S. Seminar

221. Medical Microbiology

233. Microbiology

242. Mechanisms of Microbial Pathogenicity252. General Animal Virology and Viral

Oncology 282. Molecular Microbiology 291. Basic Immunology

296. Immunochemistry

313. Immunohematology

323. Readings in Bacteriology and Immuno-

325. Medical Mycology

330. Medical Immunology

331.1-331.8. Microbiology Seminar

332.1-332.8. Immunology Seminar

336. Immunogenetics

420. Cellular Immunophysiology

Pathology

The Department of Pathology offers graduate work leading to the M.S. and Ph.D. degrees with areas of specialization such as subcellular and molecular pathology. Course work is designed to give a broad background in classical and modern pathology with emphasis on the application of modern research techniques. Students will be required to take such courses as are necessary to obtain this foundation, and as are best adapted to areas of speciality and research. Further information including brochures giving details of departmental facilities, staff, trainee stipends, and the M.D.-Ph.D. program are available from the Director of Graduate Studies.

Professors

Bernard F. Fetter, M.D. (Duke); Donald B. Hackel, M.D. (Harvard); William W. Johnston, M.D. (Duke); Thomas D. Kinney, M.D. (Duke), Choirmon, R. J. Reynolds Tobocco Compony Pro-

fessor of Medical Education; Gordon K. Klintworth, M.D., Ph.D. (Witwatersrand); Joachim R. Sommer, M.D. (Munich), Director of Graduate Studies; Philip Pratt, M.D. (Johns Hopkins); F. Stephen Vogel, M.D. (Western Reserve); Benjamin Wittels, M.D. (Minnesota).

Associate Professors

William D. Bradford, M.D. (Western Reserve); Jane G. Elchlepp, Ph.D. (Iowa), M.D. (Chicago); Norman B. Ratliff, M.D. (Duke).

Assistant Professors

Dolph O. Adams, M.D., Ph.D. (North Carolina); Peter Anderson, Ph.D. (Oregon); Darell D. Bigner, M.D., Ph.D. (Duke); Edward H. Bossen, M.D. (Duke); Charles Daniels, M.D., Ph.D. (Duke); Doyle G. Graham, M.D., Ph.D. (Duke); Hal Hawkins, M.D., Ph.D. (Duke); Hugo Jauregui, M.D., Ph.D. (Duke); John D. Shelburne, M.D., Ph.D. (Duke); Craig Tisher, M.D. (Washington Univ.); James W. Wilson, Ph.D. (Kentucky), M.D. (Duke); Peter Zwadyk, Ph.D. (Iowa).

Courses of Instruction

219. Molecular and Cellular Basis of Development

219S. Seminar

250. General Pathology

251. Laboratory Course in General Pathology

258. Cellular and Subcellular Pathology

275. Fundamentals of Electron Microscopy

325. Cardiovascular Pathology

352. Basic Problems in Chemical Pathology

353. Advanced Neuropathology

355, 356. Graduate Seminar in Pathology

357. Research in Pathology

360. Histochemistry

361, 362. Autopsy Pathology

364. Systemic Pathology

367, 368. Special Topics in Pathology

369. Ophthalmic Pathology

370. Developmental Pathology and Teratology

373. Cytopathology

374. Pulmonary Pathology and Postmortem Pathophysiology

377. Pathology of the Kidney

378. Immunopathology

379. Pathology of Virus Infections

Philosophy

The Department of Philosophy offers graduate work leading to the A.M. and Ph.D. degrees. Tutorial work complements formal instruction. Students may specialize in any of the following fields: the history of philosophy, logic, philosophy of science, epistemology, metaphysics, philosophical analysis, ethics, aesthetics, political philosophy, and philosophy of law.

Individual programs of study are developed for each student. The following requirements, however, are fundamental: (1) In February of their first year new graduate students are required to take one or two qualifying examinations which are diagnostic in purpose. One examination tests the ability to deal critically and systematically with some basic philosophical topic; a second examination in logic is required of anyone who has not taken a graduate-level logic course during his first term. (2) The preliminary examination for the Ph.D., which may be taken only after a student has met the language requirement for that degree, should be taken after the second year of study. In these examinations students are expected to combine historical knowledge with critical understanding.

Work in a minor field, not necessarily confined to any one department, is encouraged but not required. A minor normally includes 6 units for the A.M. or the Ph.D. and may include more as a student's program requires or permits.

A student who meets the general requirements of the Graduate School for the A.M. degree may earn this degree by satisfying the foreign language requirement and by passing the preliminary examination for the Ph.D. degree, or by writing and successfully defending a master's thesis.

A reading knowledge of at least one foreign language, ancient or modern, is required for the Ph.D. degree. No student may take his preliminary examination until he has demonstrated this ability. More than one language may be required where this is judged appropriate to the research demanded by the candidate's dissertation.

Professors

Glenn Robert Negley, Ph.D. (Chicago); William Bernard Peach, Ph.D. (Harvard), Director of Graduate Studies; Paul Welsh, Ph.D. (Cornell), Choirman.

Associate Professors

Edward P. Mahoney, Ph.D. (Columbia); George W. Roberts, Ph.D. (Cambridge); David H. Sanford, Ph.D. (Cornell).

Assistant Professors

Theodore Benditt, Ph.D. (Pittsburgh); David J. Ross, Ph.D. (Stanford).

Visiting Associate Professor

James Rachels, Ph.D. (North Carolina).

Visiting Assistant Professor

Paul Bamford, Ph.D. (North Carolina).

Courses of Instruction

202. Aesthetics: The Philosophy of Art 203. Contemporary Ethical Theories

204. Philosophy of Law

205. Philosophy of History

206. Topics in Ethical Theory 208. Political Values

211. Plato

217. Aristotle

218. Medieval Philosophy

225. British Empiricism

227. Continental Rationalism

228. Recent and Contemporary Philosophy

230. The Meaning of Religious Language 231. Kant's Critique of Pure Reason

232. Recent and Continental Philosophy

233. Methodology of the Empirical Sciences

234. Problems in the Philosophy of Science

241. Symbolic Logic

251. Epistemology 252. Metaphysics

253. Philosophy of Mind

254. Philosophy of Religion 255. Philosophy of Action

260. Wittgenstein

287, 288. Foundations of Mathematics

291, 292. Seminar in Special Fields of Philosophy

331, 332. Seminar in Special Fields of Philosophy

Physical Therapy

The Department of Physical Therapy offers a basic professional program leading to the M.S. degree. To be eligible for admission to the program, applicants must have obtained a baccalaureate degree and have a background in the basic and social sciences including course work in biology, chemistry, physics, psychology, and statistics. In the first year of the curriculum students are required to take courses in anatomy and physiology, offered by those respective departments. Further information may be obtained from the Director of Graduate Studies, Department of Physical Therapy, Box 3965, Duke University Medical Center.

Associate Professors

Eleanor F. Branch, Ph.D. (Duke), Acting Co-Chairmon and Director of Graduate Studies: Elia E. Villanueva, A.M. (Duke).

Courses of Instruction

201, 202. Seminar in Physical Therapy

217. Physical Therapy Dynamics I 218. Physical Therapy Dynamics II

220. Physical Therapy Dynamics III

230. Physical Evaluation and Instrumentation

234. Introductory Pathology

236. Medical Sciences

238. Introduction to Health Service Systems

242. Directed Clinical Experience in Physical Therapy I

243. Directed Clinical Experience in Physical Therapy II

- 301. Introduction to Scientific Inquiry
- 315. Curriculum Development

316. Directed Teaching in Physical Therapy 320. Sensorimotor Mechanisms Related to

Rehabilitation

322. Case Conferences in Rehabilitation

332. Administration of Physical Therapy Ser-

341-342. Advanced Seminar-Selected Problems.

350. Research

Physics

The Department of Physics offers graduate work for students wishing to earn the A.M. or Ph.D. degree. In addition to a balanced program of basic graduate courses, the department offers specialized courses and seminars in several fields of high current interest, in which research is being done by students, faculty, and staff.

With the help of faculty advisers, each student selects a course program to fit his needs, including work in a related field, usually mathematics or chemistry. Students are encouraged to begin research work early in their career.

The department does not ordinarily accept students for work toward the A.M. degree only, and students making good progress are advised to work directly for the Ph.D. The option of taking the A.M. without thesis is available, with the approval of a departmental committee.

A reading knowledge of one language, usually chosen from French. German, or Russian, is required for the Ph.D. degree.

Professors

L. C. Biedenharn, Jr., Ph.D. (Massachusetts Inst. of Tech.); Edward G. Bilpuch, Ph.D. (North Carolina); Henry A. Fairbank, Ph.D. (Yale); Walter Gordy, Ph.D. (North Carolina), LL.D., D.H.C., Jomes B. Duke Professor of Physics; Eugene Greuling, Ph.D. (Indiana); Harold W. Lewis, Ph.D. (Duke); Horst Meyer, D.Sc. (Geneva); Henry W. Newson, Ph.D. (Chicago), Jomes B. Duke Professor of Physics ond Choirmon; Russell Roberson, Ph.D. (Johns Hopkins); Hugh G. Robinson, Ph.D. (Duke); William D. Walker, Ph.D. (Cornell); Richard L. Walter, Ph.D. (Notre Dame).

Associate Professors

Ron Y. Cusson, Ph.D. (California Inst. of Tech.); Lawrence E. Evans, Ph.D. (Johns Hopkins). Director of Groduote Studies; Lloyd R. Fortney, Ph.D. (Wisconsin); Moo-Young Han, Ph.D. (Rochester); Eberhard Karl Riedel, Ph.D. (Munich).

Assistant Professors

Frank C. DeLucia, Ph.D. (Duke); Geoffrey R. Golner, Ph.D. (Cornell); Alfred T. Goshaw, Ph.D. (Wisconsin); Dewey T. Lawson, Ph.D. (Duke); Paul W. Lisowski, Ph.D. (Duke); James S. Loos, Ph.D. (Illinois).

Adjunct Professors

Herman Robl, Ph.D. (Vienna); Katherine Way, Ph.D. (North Carolina).

Courses of Instruction

- 211, 212. Advanced Modern Physics
- 215. Introduction to Quantum Mechanics
- 217, 218. Advanced Physics Laboratory and Seminar
- 220. Electronics
- 223. Electricity and Magnetism
- 282. Mechanics of Continuous Media
- 302. Advanced Mechanics
- 303. Statistical Mechanics
- *304. Advanced Topics in Statistical Mechanics
- 305. Introduction to Nuclear Physics
- *306. Low Temperature Physics
- 308. Introduction to High Energy Physics
- 309. Solid State Physics I
- *310. Solid State Physics II
 - *Offered on demand.

- 312. Phase Transitions and Critical Phenomena
- 316. Principles of Quantum Theory
- 317. Intermediate Quantum Theory
- 318. Electromagnetic Field Theory
- *330. Nuclear Structure Theory
- *331. Microwave Radiation
- *335. Microwave Spectroscopy
- *341. Advanced Topics in Quantum Theory
- *342. Theory of Elementary Particles
- *343. Nuclear Physics
- *344. Advanced Nuclear Physics
- *345. High Energy Physics
- *346. Topics in Theoretical Physics
- 351, 352. Seminar
- 397, 398. Low Temperature and Solid State Seminar

Physiology and Pharmacology

The Department of Physiology and Pharmacology offers graduate work leading to the Ph.D. degree. Before undertaking this program a student should have a strong background in basic sciences including course work in mathematics, biology, physics, and chemistry through physical chemistry. Undergraduates with this background may have majors in any of the following areas: biology, chemistry, physics, or engineering. There is no foreign language requirement. All graduate students are required to take the introductory courses in both physiology and pharmacology. A brochure which

describes the program of study, facilities, and the research activities of the staff is available from the Director of Graduate Studies.

Professors

F. Bernheim. Ph.D. (Cambridge). James B. Duke Professor of Phormacology; J. J. Blum. Ph.D. (Chicago): George H. Hitchings. Ph.D. (Harvard); F. Jobsis. Ph.D. (Michigan); E. A. Johnson. M.D. (Sheffield. England): L. Lack. Ph.D. (Columbia): Robert Arthur Maxwell. Ph.D. (Princeton): J. W. Moore. Ph.D. (Virginia): T. Narahashi. Ph.D. (Tokyo). Vice Chairman: Charles Adams Nichol. Ph.D. (Wisconsin): S. Schanberg. Ph.D., M.D. (Yale): G. Somjen, M.D. (New Zealand): D. C. Tosteson. M.D. (Harvard). Chairman and James B. Duke Professor of Physiology.

Associate Professors

N. C. Anderson, Ph.D. (Purdue); R. E. Fellows, Jr., M.D. (McGill), Ph.D. (Duke); Johannes A. Kylstra, M.D., Ph.D. (Leiden); P. K. Lauf, M.D. (Freiburg); Melvyn Lieberman, Ph.D. (New York Downstate Medical Center); T. J. McManus, M.D. (Boston); L. M. Mendell, Ph.D. (Massachusetts Inst. of Tech.); Daniel B. Menzel, Ph.D. (California at Berkeley); E. Mills, Ph.D. (Columbia); A. Ottolenghi, M.D. (Pavia), Director of Graduate Studies; G. M. Padilla, Ph.D. (California at Los Angeles); J. V. Salzano, Ph.D (Iowa); M. Wolbarsht, Ph.D. (Johns Hopkins).

Assistant Professors

Reginald D. Carter, Ph.D. (Bowman Gray): Howard L. Elford, Ph.D. (Cornell); Joseph C. Greenfield, M.D. (Emory); Robert B. Gunn, M.D. (Harvard); J. Gutknecht, Ph.D. (North Carolina); Gary Kirk, Ph.D. (Yale); J. Mailen Kootsey, Ph.D. (Brown): Harold E. Lebovitz, M.D. (Pittsburgh); Lazaro J. Mandel, Ph.D. (Pennsylvania); Donald H. Namm, Ph.D. (Albany Medical College); Gerald M. Rosen, Ph.D. (Clarkson): Myron Rosenthal, Ph.D. (Duke); C. W. Schomberg, Ph.D. (Purdue); James M. Schooler, Ph.D. (Wisconsin): Theodore A. Slotkin, Ph.D. (Rochester): H. C. Wachtel, Ph.D. (New York Univ.): Andrew G. Wallace, M.D. (Duke).

Courses of Instruction

- 200. Introduction to the Physiology of Man
- 202. Introduction to Physiology
- 203. Advanced Physiology
- 208. Respiratory System in Health and Disease
- 210, 211. Individual Study and Research
- 212. Membrane Physiology and Osmoreg-
- 215. Topics in Developmental Physiology
- 216. Contractile Processes
- 217. Membrane Transport
- 225. An Introduction to Neuronal Physiology and Pharmacology
- 230. Molecular and Cellular Basis of Development
- 230S. Optional Seminar
- 250. Pharmacology: Mode of Action of Drugs
- 252. Cellular and Chemical Pharmacology
- 254. Mammalian Toxicology
- 256. Human Nutrition
- 280. Student Seminar in Physiology and Pharmacology
- 311. Physiological Basis of Medicine
- 321. Gastrointestinal and Renal Physiology
- 330. Pharmacological Basis of Clinical Medicine

- 331. Laboratory Methods in Pharmacology
- 334. Pharmacodynamics
- 362. Current Topics in Cardiac Muscle Physiology
- 372. Research in Physiology and Pharmacology
- 383. Physiological Instrumentation
- 386. Laboratory Methods in Electrophysiology
- 393. Integrative and Clinical Neurophysiology
- 401. Metabolic and Developmental Physiology
- 414. Analysis of Physiological Systems
- 416. Biophysics of Excitable Membranes
- 417. Cellular Endocrinology
- 418. Reproductive Biology
- 419. Topics in Mathematical Physiology
- 420. Cellular Immunophysiology
- 422. Advanced Seminar in Endocrinology and Reproductive Physiology I
- 423. Advanced Seminar in Endocrinology and Reproductive Physiology II

Political Science

The Department of Political Science offers graduate work leading to the A.M. and Ph.D. degrees. Before being admitted to candidacy for the Ph.D. degree, an applicant is usually expected to have qualified for the A.M. degree.

Instruction is designed to prepare the student for teaching and research, for government service, and for other work related to public affairs. Before undertaking grad-

uate study in political science, a student is ordinarily expected to have completed at least 12 semester hours of course work in political science, including some work in American government.

Fields in which instruction is offered currently are American government and politics; comparative government and politics; political theory; international relations;

and empirical theory and methodology.

The candidate for the degree of Doctor of Philosophy in political science must take at least twelve courses in the department and demonstrate competence in at least three general fields of the discipline as well as as in a fourth general field or in a specialized sub-field or in a field external to the department. He must also demonstrate a reading knowledge of two foreign languages or he must demonstrate proficiency in one such foreign language and in the use of statistics.

Further details on the graduate program in political science, the departmental facilities, the staff and available financial aid may be obtained from the Director of

Graduate Studies, Department of Political Science.

Professors

M. Margaret Ball, Ph.D (Stanford); James David Barber, Ph.D. (Yale), Choirmon; Ralph Braibanti, Ph.D. (Syracuse), James B. Duke Professor of Political Science; Frederic N. Cleaveland, Ph.D. (Princeton); Robert Taylor Cole, Ph.D. (Harvard), Jomes B. Duke Professor of Political Science; Kazimierz Grzybowski, S.J.D. (Harvard); Hugh Marshall Hall, Jr., Ph.D. (Texas); John Hamilton Hallowell, Ph.D. (Princeton); Ole R. Holsti, Ph.D. (Stanford); Jerry F. Hough, Ph.D. (Harvard); Allan Kornberg, Ph.D. (Michigan); Richard H. Leach, Ph.D. (Princeton).

Associate Professors

Peter Fish, Ph.D. (Johns Hopkins), Director of Groduate Studies; Sheridan Johns, III, Ph.D. (Harvard); David Paletz, Ph.D. (California at Los Angeles); David E. Price, B.D., Ph.D. (Yale); Thomas S. Spragens, Ph.D. (Duke).

Assistant Professors

Albert Eldridge, Ph.D. (Kentucky); Willis F. Hawley, Ph.D. (California at Berkeley); Margaret A. McKean, Ph.D. (California at Berkeley); William Mishler, Ph.D. (Duke); Lester M. Salamon, Ph.D. (Harvard); Richard Trilling, Ph.D. (Wisconsin); Arturo Valenzuela, M.A. (Columbia).

Lecturers

Jean F. O'Barr, Ph.D. (Northwestern); Deborah A. Stone, B.A. (Michigan).

Courses of Instruction

- 206. Politics and the Media
- 207. American Constitutional Interpretation
- 208. American Constitutional Development
- 209. Problems in State Government and Politics
- 210. The Politics of Education
- 211. Contemporary Japanese Politics
- 212. Japanese Foreign Policy
- 214. Comparative Administrative Law 215. Comparative Legislative Processes
- 216. Comparative Politics of the Welfare State
- 220. Problems in International Politics
- 221. International Organization
- 222. Empirical Theory
- 223. Political Philosophy from Plato to Machiavelli
- 224. Modern Political Theory
- 225. Comparative Government and Politics-Western Europe
- 226. Theories of International Relations
- 227. International Law
- 228. Soviet Public International Law
- 229. Recent and Contemporary Political Theory

- 230. American National Government
- 231. American Political Theory
- 233. Research Methodology
- 235. The Commonwealth236. Statistical Analysis
- 237. Seminar in Problems of American Foreign Policy
- 241. Public Administrative Organization and Management
- 243. Administrative and Organizational
- 244. Administrative Law and Process
- 245. Ethics and Policy-Making
- 246. Administration and Public Policy
- 247. Political Participation and Policy Outcomes
- 248. The Politics of the Policy Process
- 249. Comparative Political Analysis and Political Development
- 250. Comparative Government and Politics-Southern Asia
- 252. Comparative Political Behavior and Socialization
- 253. Comparative Government and Politics-Latin America

- 260. The Tradition of Political Inquiry
- 266. Soviet Foreign Policy
- 271. Political Processes in Traditional and Modern Africa
- 273. Modernization in the American South
- 274. Political Psychology
- 275. The American Party System
- 277. Comparative Party Politics
- 278. Canadian Political Behavior in the North American Context
- 279. The Legislative Process
- Comparative Government and Politics— Sub-Saharan Africa
- 283. Congressional Policy-Making
- 285. The Judicial Process
- 291. Problems of Urban Government
- 293. Federalism
- 303. Seminar on Selected Topics in Statistics
- 305. Seminar in Foreign Policy
- 306. Seminar in Politics and the Mass Media of Communication
- 307. Graduate Seminar in American Voting
- 310. Seminar in State and Local Government
- 312. Seminar in Constitutional Law
- 313. Education and Public Policy
- 321. Seminar in Political Theory
- 322. Seminar in Selected Topics in Empirical and Formal Theory

- 325. Seminar in Comparative Government and Politics
- 328. Seminar in International Law
- 329. Seminar in International Regional Organization
- 330. Seminar in Comparative Government and Politics—Southern Asia
- 331. Seminar in American Political Thought
- 341. Seminar in Public Administration
- 342. Seminar in American National Government and Politics
- 343. Seminar in the Policy Process
- 344. Workshop on Computer Models of Social Systems
- 360. Seminar in Government and Politics in the Soviet Union
- 361. Seminar in Foreign Relations of the Soviet Union
- 376. Seminar in Comparative Political Behavior
- 380. Seminar in African Government and Politics
- Seminar in Latin American Government and Politics
- 382. Soviet Law and Society
- 401. Seminar in the Commonwealth
- 402. Interdisciplinary Seminar in the History of the Social Sciences

Psychology

The department offers work leading to the Ph.D. degree. The areas of concentration are experimental, biological, cognitive, social, personality, developmental, and clinical psychology. Students in experimental, biological, and cognitive psychology should have a strong undergraduate background in basic science: mathematics, physics, biology, and chemistry.

A brochure is available from the Director of Graduate Studies which describes the program in more detail and gives information on financial assistance, facilities, and current research activity.

Professors

Irving Emanuel Alexander, Ph.D. (Princeton), Choirmon: William Bevan, Ph.D. (Duke), William Preston Few Professor of Psychology: Lloyd Joseph Borstelmann, Ph.D. (California at Berkeley); Jack Williams Brehm, Ph.D. (Minnesota); Robert Charles Carson, Ph.D. (Northwestern); Irving Thomas Diamond, Ph.D. (Chicago), Jomes B. Duke Professor of Psychology; Robert Porter Erickson, Ph.D. (Brown); Norman Guttman, Ph.D. (Indiana); Edward Ellsworth Jones, Ph.D. (Harvard); Martin Lakin, Ph.D. (Chicago); Gregory Roger Lockhead, Ph.D. (Johns Hopkins); Harold Schiffman, Ph.D. (Princeton); John Staddon, Ph.D. (Harvard), Director of Groduote Studies; Michael A. Wallach, Ph.D. (Harvard); Cliff Waldron Wing, Jr., Ph.D. (Tulane).

Associate Professors

John C. Coie, Ph.D. (California at Berkeley): Robert Costanzo, Ph.D. (Florida); Carl John Erickson, Ph.D. (Rutgers); William C. Hall, Ph.D. (Duke); John B. McConahay, Ph.D. (California at Los Angeles).

Assistant Professors

David Aderman, Ph.D. (Wisconsin); Carol Eckerman, Ph.D. (Columbia); Gregory W. Fischer, Ph.D. (Michigan); William Kalat, Ph.D. (Pennsylvania); Irwin Kremen, Ph.D. (Harvard); Alan S. Levy, Ph.D. (Columbia); Thomas T. Norton, Ph.D. (California at Los Angeles); G. M. Robinson, Ph.D. (Chicago); Susan Roth, Ph.D. (Northwestern); Charles W. White, Ph.D. (Stanford).

Lecturers

John H. Casseday, Ph.D. (Indiana): Herbert Floyd Crovitz, Ph.D. (Duke); W. Doyle Gentry, Ph.D. (Florida State); Ronald W. Oppenheim, Ph.D. (Washington); Talmadge Lee Peele, M.D. (Duke); William Derek Shows, Ph.D. (Duke); George G. Somjen, M.D. (New Zealand); Lise Wallach, Ph.D. (Kansas); M. L. Wolbarsht, Ph.D. (Johns Hopkins).

Courses of Instruction

- 203. Sensation and Perception
- 206. Comparative Psychology
- 210. Cognitive Psychology
- 213. Adaptive Behavior
- 215. Developmental Psychology
- 216. Biological Psychology
- 217. Social Psychology218. Research Methods in Social Psychology
- 219. Neural Bases of Behavior
- 228. Visually Guided Behavior
- 230. Social Behavior of Animals
- 234. Seminar in Personality
- 245. Personality Theory 1
- 246. Personality Theory II
- 271. Seminar
- 273-274. Principles of Psychological Measurement
- 276. Neuroanatomical Basis of Sensory Physiology
- 282. Introduction to Methods in Psychotherapy
- 283, 284. The History of Psychology
- 291. Seminar in Community Mental Health
- 293. Methods in Developmental Psychology
- 305. Psychopathology

- 306. Seminar in Developmental Psychology
- 309. Seminar in Learning
- 310. Seminar in Perception
- 313. Seminar on the Concept of the Reflex
- 314. Seminar in Instrumental Behavior
- 316. Seminar in Social Psychology
- 317. Seminar in Social Behavior
- 318. Seminar in Social Influence 319-320. Research-Clinical Tutorial
- 321. Seminar in Psychophysiology of Hearing
- 325. Seminar in Animal Behavior
- 327, 328. Foundations of Clinical Psychology
- 329-330. Seminar in Psychology
- 333, 334. Seminar: Behavioral Studies of the
- 335-336. Clinical Inquiry I
- 337. Seminar in Sensory Discrimination
- 340. Group Processes and Sensitivity Training
- 343, 344. Clinical Inquiry II
- 347-348. Personality Assessment
- 350. Practicum in Psychological Research
- 393. Integrative and Clinical Neurophysiology and Neuropharmacology

Public Policy Sciences

The graduate program in public policy sciences is offered through the Institute of Policy Sciences and Public Affairs. The course of study consists of a series of joint degree programs leading to the degree of Master of Arts in Public Policy Sciences, and a doctoral or professional degree. Such a program is designed to foster in highly trained professionals the perceptual and analytical skills necessary for sound public decisionmaking. The Institute does not award independent A.M. or Ph.D. degrees.

With the exception of those individuals already possessing doctoral or professional degrees, therefore, all graduate students in the Institute must pursue a concurrent degree in another department or school at Duke, or at a nearby cooperating institution. Joint degree programs exist or are being developed between the Institute and the Schools of Law, Engineering, Medicine, and Business Administration, and with several graduate departments.

Students usually apply for the joint degree program simultaneously with application to their graduate departments or professional schools, or during their first or second year of advanced study. Candidates are expected to complete an equivalent of one full year of work beyond what their doctoral or professional degree would require alone.

The joint degree curriculum involves a minimum of ten courses, to be specified by the Institute. Academic work includes a four course research sequence and a summer internship in such specialized policy areas as law and the administration of justice, communications, health, and education. This policy research sequence, in which the student works closely with faculty in tutorial or small group situations, stresses the development of analytical skills applicable to the broad range of policy arenas.

Further information concerning specific joint degree programs may be obtained from the Director of Graduate Studies.

Professors

Edward Harvey Estes, Jr., M.D. (Emory); Joel Lawrence Fleishman, LL.M. (Yale), Director; Jerry F. Hough, Ph.D. (Harvard); David L. Lange, LL.B. (Illinois).

Associate Professors

Robert D. Behn, Ph.D. (Harvard), Director of Groduote Studies; Willis D. Hawley, Ph.D. (California at Berkeley), Associate Director; John B. McConahay, Ph.D. (California at Los Angeles); David E. Price, B.D., Ph.D. (Yale).

Assistant Professors

Joseph C. Bell, Ph.D. (Harvard); Philip J. Cook. Ph.D. (California at Berkeley): Jarir S. Dajani, Ph.D. (Northwestern); Gregory W. Fischer, Ph.D. (Michigan); Lester M. Salamon, Ph.D. (Harvard); James Walton Vaupel, Ph.D. (Harvard).

Lecturers

Joseph Lipscomb, Jr., B.A. (Vanderbilt): Bruce L. Payne, M.A. (Yale): Deborah A. Stone, B.A. (Michigan).

Courses of Instruction

- 216S. Comparative Politics of the Welfare State217. The Application of Microeconomics to Public Policy-Making
- 219. The Politics of the Policy Process
- 221. Analytical Methods I: Forecasting Consequences of Policy Alternatives
- 222. Analytical Methods II: Appraising Consequences of Policy Alternatives
- 223. Ethics and Policy-Making
- 224. Administrative and Organizational Theory
- 247. Political Participation and Policy Outcomes
- Advanced Analytical Methods for Public Policy-Making
- 252S. Seminar in National Security Policy
- 253. Psychological Approaches to Public Policy Analysis
- 254. Transportation Planning and Policy Analysis

- 260. Public Policy Research Seminar: The Administration of Justice
- 261S. Research Seminar: Health Policy I
- 262S. Research Seminar: Communications I
- 263. Public Policy Research Seminar: Urban and Regional Land Use Planning I
- 264. Public Policy Research Seminar: Topics in Public Policy I
- 270S. Humanistic Perspectives on Public Policy
- The Uses of History in Public Policy-Making
- 283. Congressional Policy-Making
- 310. Analytical Methods III: Experimentation and Evaluation
- 391. Multinational Corporations Seminar
- 340-390. Public Policy Research Seminars

Religion

The Department of Religion offers graduate work leading to the A.M. and Ph.D. degrees. Students may major in one of three fields: (1) Biblical studies; (2) historical studies; and (3) systematic and contemporary studies.

In addition to course work in these major fields, students will take such other courses in cognate fields as will contribute to the enrichment of their major studies. This minor requirement may be fulfilled either by work in a cognate department, such as Classical Studies, History. Political Science, or Sociology, or by work in a cognate field within the Department of Religion other than the field of major concentration.

The program of doctoral studies presumes a grounding in religion such as is usually derived from the course content of theoretical subjects of a seminary curriculum. Candidates for admission to the doctoral program are favored, therefore, who hold a B.D. or equivalent degree from an accredited seminary or who have had at least two years of seminary study beyond the A.B. degree. Students applying for graduate work in religion directly from an undergraduate program should have had a strong undergraduate major in religion, and will be accepted for the Ph.D. program only on the condition of satisfactory completion of the A.M. degree with the department.

Professors

Frank Baker, B.D., Ph.D. (Nottingham); W. Waldo Beach, B.D., Ph.D. (Yale); David Bradley, Ph.D. (Yale); Robert E. Cushman, B.D., Ph.D., L.H.D. (Yale); William David Davies, B.D., M.A.,

D.D. (Wales), George Woshington Ivey Professor of Advonced Studies and Research in Christian Origins; Stuart C. Henry, B.D., Ph.D. (Duke); Frederick L. Herzog, Th.D. (Princeton); Creighton Lacy, B.D., Ph.D. (Yale); Thomas A. Langford, B.D., Ph.D. (Duke); Charles H. Long, Ph.D. (Chicago); Roland E. Murphy, S.T.D. (Catholic Univ.); Robert Osborn. B.D., Ph.D. (Drew); William H. Poteat, B.D., Ph.D. (Yale), Chairman; James L. Price. B.D., Ph.D. (Cambridge); D. Moody Smith, Jr., B.D., Ph.D. (Yale), Director of Groduote Studies; Franklin W. Young. B.D., Ph.D. (Duke), Amos Ragon Keorns Professor of New Testament and Potristic Studies.

Associate Professors

Lloyd Richard Bailey, Ph.D. (Yale); Henry B. Clark, B.D., Ph.D. (Yale); Wesley A. Kort, B.D., Ph.D. (Chicago); Eric M. Meyers, Ph.D. (Harvard); Harry B. Partin, B.D., Ph.D. (Chicago); Jill Raitt, Ph.D. (Chicago); Charles K. Robinson, B.D., Ph.D. (Duke); Harmon L. Smith, B.D., Ph.D. (Duke); David Curtis Steinmetz, Th.D. (Harvard); Orval Wintermute, B.D., Ph.D. (Johns Hopkins).

Assistant Professors

James H. Charlesworth, B.D., Ph.D. (Duke); Bruce Lawrence, Ph.D. (Yale).

BIBLICAL STUDIES

Courses of Instruction

- 207. Second Hebrew
- 208. Second Hebrew
- 209. Old Testament Theology
- 220. Third Hebrew
- 221. Readings in Hebrew Biblical Commentaries
- 223A. Exegesis of the Hebrew Old Testament: Amos and Hosea
- 223B. Exegesis of the Hebrew Old Testament:
- 223C. Exegesis of the Hebrew Old Testament: Exodus
- 225. Living Issues in New Testament Theology
- 226A. Exegesis of the Greek New Testament I (Mark and Matthew)
- 226B. Exegesis of the Greek New Testament I (Romans)
- 226D. Exegesis of the Greek New Testament I (I and II Corinthians)
- 226E. The Gospel and Epistles of John
- 227A. Exegesis of the Greek New Testament II (Luke-Acts)
- 227B. Exegesis of the Greek New Testament II (Galatians)
- 227C. Exegesis of the Greek New Testament II (The Pastoral Epistles)
- 228. The Theology of the Gospel and Epistles of John

- 237. History of the Ancient Near East
- 239. Introduction to Middle Egyptian
- 242. Life After Death in Semitic Thought
- 244. The Archaeology of Palestine in Hellenistic-Roman Times
- 258. Coptic
- 302. Studies in Intertestamental Literature
- 304. Aramaic
- 304A. Targumic Aramaic
- 306. Language and Literature of the Dead Sea Scrolls
- 307. Syriac
- 311. Pharisaic Judaism in the First Century
- 312. Pauline Theology
- 314. Judaism and Christianity in the New Testa-
- 319. The Gospel According to St. Matthew in Recent Research
- 323A. Comparative Semitic I
- 323B. Comparative Semitic II
- 340-341. Seminar in the New Testament
- 345. The Epistle to the Hebrews in Recent Research.
- 350-351. Old Testament Seminar
- 353. Seminar on Text Criticism
- 373-374. Elementary Akkadian
- 375-376. Elementary Ugaritic
- 401. Colloquium in Biblical Studies

HISTORICAL STUDIES

- 217. Islam in India
- 218. Religion in Japan
- 236. Luther and the Reformation in Germany
- 238. Jewish Responses to Christianity
- 241. Problems in Reformation Theology
- 246. Problems in Historical Theology
- 247. Readings in Latin Theological Literature
- 251. The Counter-Reformation and the Development of Catholic Dogma
- 260. Seminar: Wesley Studies
- 280. The History of Religions
- 282. Myth and Ritual
- 283. Religions of East Asia

- 284. The Religion and History of Islam
- 285. The Vedic Tradition: Its Compilation and Interpretation
- 287. The Scriptures of Asia
- 288. Buddhist Thought and Practice
- 289. World Religions and Social Change
- 296. Religion on the American Frontier
- 308. Greek Patristic Texts
- 313. The Apostolic Fathers
- 315-316. Seminar: History of Religions
- 317. Seminar in the Greek Apologists
- 318. Seminar in the Greek Fathers
- 324. Readings in the History of Religion

- 334. Theology and Reform in the Later Middle
- 335. The English Church in the Eighteenth Century
- 336. Christian Mysticism in the Middle Ages
- 338. Calvin and the Reformation in Switzerland
- 339. The Radical Reformation
- 344. Zwingli and the Origins of Reformed Theology
- 384. Religious Dissent in American Culture
- 385. Religion in American Literature
- 391. Historical Types of Christian Ethics I
- 392. Historical Types of Christian Ethics II 395. Christian Thought in Colonial America
- 396. Liberal Traditions in American Theology

SYSTEMATIC AND CONTEMPORARY STUDIES

- 210. Contemporary British Theology
- 211. Authority in Theology
- 214. The Christian Doctrine of Salvation
- 230. The Meaning of Religious Language
- 231. Seminar in Christianity and Contemporary Thought
- 232. Religion and Literature: Perspectives and Methods
- 233. Modern Narrative and Religious Language
- 245. Ethics in World Religions
- 248. The Theology of Karl Barth
- 249. The Church in Contemporary Theology
- 262. Marxist Ideology and Christian Faith
- 272. Seminar on Topics in Comparative Theology
- 281. Phenomenology and Religion
- 292. Christian Ethics and International Relations
- 293. Sociological Analysis of Religion
- 294. Institutional Analysis of Religious Bodies
- 295. Ethics and Economic Life
- 300. Systematic Theology
- 303. The New Hermeneutic and the Idea of History

- 320. Hegel and Schleiermacher
- 322. Nineteenth Century European Theology
- Philosophical Theology I
- 326. Philosophical Theology II
- 328. Twentieth Century European Theology
- 352. Seminar in Christian Theology
- 360. Special Problems in Religion and Culture
- 361. Language and Biblical Criticism
- 377. Contemporary American Dramatic Arts and Evolving Theological Forms 380. Existentialist Thought
- 383. Moral Theology in the Twentieth Century
- 386. Christianity in Dialogue with Other Faiths
- 388. Ethics and Medicine
- 389. Christian Ethics and Contemporary Culture
- 390. Current Problems in Christian Ethical Theory
- 394. Christianity and the State
- 397. Contemporary American Theology
- 398. Colloquium on the College and University Teaching of Religion

Romance Languages

The Department of Romance Languages offers graduate work leading to the A.M., M.A.T., and Ph.D. degrees in French and Spanish. Requirements for the A.M. may be completed by submission of a thesis or by passing a comprehensive examination in the major field. It is hoped that candidates for the A.M. and Ph.D. degrees will take related work in a second Romance language; however, related work may be taken in any one or two of a number of other subject areas.

In order to undertake graduate study in Romance languages, the entering student should have credit for at least 18 semester hours (or equivalent) above the intermediate level in the major language.

Professors

Thomas Howard Cordle, Ph.D. (Yale); Gifford Davis, Ph.D. (Harvard); John Morton Fein, Ph.D. (Harvard); Wallace Fowlie, Ph.D. (Harvard); Robert Niess, Ph.D. (Minnesota); Richard Lionel Predmore, D.M.L. (Middlebury); Marcel Tetel, Ph.D. (Wisconsin), Choirmon; Bruce W. Wardropper. Ph.D. (Pennsylvania), Williom H. Wonnomoker Professor of Romonce Longuoges.

Associate Professors

Miguel Garci-Gomez, Ph.D. (Catholic Univ.); Alexander Hull, Ph.D. (Washington); Philip Stewart, Ph.D. (Yale); Patrick R. Vincent, Ph.D. (Johns Hopkins), Director of Groduote Studies.

Assistant Professors

Ernesto Caserta, Ph.D. (Harvard); Richard L. Landeira, Ph.D. (Indiana).

FRENCH

Courses of Instruction

209. Advanced Composition and Syntax

210. The Structure of French

213, 214. French Literature of the Seventeenth Century

217. French Symbolism

219. Old French Literature

220. French Pre-Romantic and Romantic Poetry

221, 222. The Nineteenth Century French Novel

223. Structuralism and the New Criticism

224. History of the French Language

225. French Prose of the Sixteenth Century

226. French Poetry of the Sixteenth Century 228. French Poetry of the Twentieth Century

228. French Poetry of the Iwentieth Cen

233. Contemporary French Theater

234. Proust

241, 242. French Literature of the Eighteenth Century

245, 246. French Literature of the Twentieth Century

311, 312. French Seminar

ITALIAN

283. Italian Novel of the Novecente

284. Dante

288. The Renaissance

SPANISH

251. The Origins of Spanish Prose Fiction

252. Spanish Lyric Poetry Before 1700253. The Origins of the Spanish Theater

255, 256. Modern Spanish American Literature

257. Old Spanish

258. Medieval Literature

259. Spanish Phonetics

260. Origins and Development of Spanish Romanticism

261. Nineteenth Century Novel

262. Galdós

265. Cervantes

266. Drama of the Golden Age

275, 276. Contemporary Spanish Literature

321, 322. Hispanic Seminar

ROMANCE LANGUAGES

218. The Teaching of Romance Languages

Slavic Languages and Literature

The Department of Slavic Languages and Literatures inaugurated in 1971 a graduate program leading to the A.M. degree. Initially, graduate students will be able to major only in Russian language and literature, but there will be limited training in the language and literature of Poland.

Applicants should have sufficient undergraduate preparation in the Russian language to enable them to read Russian classical literature in the original.

Associate Professors

Bronislas de Leval Jezierski, Ph.D. (Harvard); Magnus J. Krynski, Ph.D. (Columbia), Choirmon.

Courses of Instruction

201, 202. The Novelists of Nineteenth Century Russia

205. The Structure of Polish in Relation to Russian

206. Readings in Contemporary Polish Prose in the Original

207. Soviet Literature and Culture

209. Readings in Contemporary Polish Prose in the Original

212. Pushkin

*Not offered in 1975-1976.

- 213. The Slavs: Literature and Culture, 1918-1939
- 214. The Poles: Literature and Culture, 1940-
- *224. The Russian Short Story—Eighteenth Century to the Present

225. Tolstoy

*227. Gogol

230. Chekhov and the Russian Prose of the Turn of the Century

232. Dostoevsky

*236. Russian and Polish Romanticism

Sociology

The department offers graduate work leading to the Ph.D. degree in sociology. Before undertaking advanced work in this department, a student must have completed a mini-

mum of 12 semester hours of approved preliminary courses in sociology, and an additional 12 semester hours in related work. Applicants for admission should submit scores

on the Graduate Record Examination, especially the Aptitude Test.

Candidates for the Ph.D. degree in sociology are expected to demonstrate in qualifying and preliminary examinations a broad background in the various aspects of sociology—substantive, theoretical, and empirical. The program of each candidate is determined by a committee which reviews his previous work and sets the specific requirements to be met. These requirements will include work in related fields such as anthropology, economics, mathematics, philosophy, political science, or psychology. Emphasis is placed on the completion of the dissertation, directed by a member of the staff, demonstrating competence and independence in the investigation of an original and significant problem.

Further details of this program, the departmental facilities, the staff, and various

stipends available may be obtained from the Director of Graduate Studies.

Professors

Kurt W. Back, Ph.D. (Massachusetts Inst. of Tech.); Alan C. Kerckhoff, Ph.D. (Wisconsin), Choirmon; George L. Maddox, Jr., Ph.D. (Michigan State); John C. McKinney, Ph.D. (Michigan State); George C. Myers, Ph.D. (Washington); Erdman B. Palmore, Ph.D. (Columbia); Jack H. Preiss, Ph.D. (Michigan State); Donald F. Roy, Ph.D (Chicago); Joel Smith, Ph.D. (Northwestern), Director of Groduate Studies; Edward A. Tiryakian, Ph.D. (Harvard).

Associate Professors

Ida Simpson, Ph.D. (North Carolina); John Wilson, D.Phil. (Oxford).

Assistant Professors

Jeannie M. Baldigo, Ph.D. (Indiana); Richard T. Campbell, Ph.D. (Wisconsin); Mark Evers, Ph.D. (Michigan); Charles Hirschman, Ph.D. (Wisconsin); James S. House, Ph.D. (Michigan); Eugene S. Schneller, Ph.D. (New York Univ.).

Courses of Instruction

- 225. Medical Sociology
- 241. Social Stratification
- 242. The Sociology of Occupations and Professions
- 243. Population Dynamics and Social Change
- 251. The Sociology of Modernization
- 255. Race and Culture
- 259. Religion and Social Change
- 260. Science, Technology, and Society
- 272. The Socialization Process
- 275. Social Attitudes and Individual Behavior
- 278. Social Structure and the Life Cycle
- 295. Methodology in Sociology
- 297. Introductory Statistical Analysis
- 298, 299. Seminar in Selected Topics
- 301. Seminar in Human Fertility
- 302. Seminar in Migration
- 325. Social Aspects of Mental Illness and Treatment

- 341. Special Problems of Complex Systems
- 344. Workshop on Computer Models of Social Systems
- 345, 346. Demographic Techniques I and II
- 351, 352. Seminar in Social Organization
- 361. Seminar in Comparative Sociology
- 373, 374. Social Psychological Issues in Sociology
- 381. Development of Sociological Theory
- 385. Seminar in Sociological Theory
- 386. Seminar in Sociological Theory
- 390. Seminar in Field Methods of Sociological Research
- 392. Individual Research in Sociology
- 397, 398. Seminar in Special Research Problems
- 402. Interdisciplinary Seminar in the History of the Social Sciences

Zoology

The Department of Zoology manages a variety of programs tailored to individual needs of students seeking A.M. or Ph.D. degrees.

In general, a student entering the department will be equipped to pursue an advanced degree if he has completed an undergraduate major in biology along with some formal training in college-level chemistry, mathematics, physics, and foreign languages.

Nevertheless, in recognition and support of the modern trend toward interdisciplinary research, the department is prepared to accept promising students with less orthodox academic backgrounds and is ready to encourage any student wishing to undertake

a program of study leading, in effect, to an interdisciplinary degree sponsored by the

Thus, all students are urged to search widely in the Bulletin of Undergroduate Instruction and the official detailed Bulletin of the Groduote School for information about the intellectual resources of the University. Special attention, perhaps, should be given to announcements of the Departments of Anatomy, Anthropology, Biochemistry, Botany, Chemistry, Geology, History, Mathematics, Microbiology and Immunology, Philosophy. Physics, Physiology and Pharmacology, Psychology, Sociology, and Zoology; announcements of the Schools of Engineering and Forestry should also be consulted.

Professors

Joseph R. Bailey, Ph.D. (Michigan); Cazlyn G. Bookhout, Ph.D. (Duke); John D. Costlow, Jr., Ph.D. (Duke); Donald J. Fluke, Ph.D. (Yale). Choirmon; Nicholas W. Gillham, Ph.D. (Harvard); John R. Gregg, Ph.D. (Princeton); Peter H. Klopfer, Ph.D. (Yale); Daniel A. Livingstone, Ph.D. (Yale); R. Bruce Nicklas, Ph.D. (Columbia); Knut Schmidt-Nielsen, Dr. Phil. (Copenhagen), Jomes B. Duke Professor of Physiology in Zoology; Vance A. Tucker, Ph.D. (California at Los Angeles); Karl M. Wilbur, Ph.D. (Pennsylvania), James B. Duke Professor of Zoology.

Associate Professors

Richard T. Barber, Ph.D. (Stanford); Steven Vogel, Ph.D. (Harvard); Stephen A. Wainwright, Ph.D. (California), Director of Groduote Studies; Calvin L. Ward, Ph.D. (Texas).

Adjunct Associate Professor

Klaus Schmidt-Koenig, Ph.D. (Freiburg).

Assistant Professors

Jan Bergeron, V.M.D. (Pennsylvania); Richard B. Forward, Ph.D. (California at Santa Barbara); John G. Lundberg, Ph.D. (Michigan); David R. McClay, Ph.D. (North Carolina); Kenneth Storey, Ph.D. (British Columbia); John P. Sutherland, Ph.D. (California at Berkeley); H. Wilbur, Ph.D. (Michigan).

Courses of Instruction

201. Animal Behavior

202. Introduction to Comparative Behavior

203. Marine Ecology

204. Population and Community Ecology

205. Elements of Theoretical Biology 214. Biological Oceanography

216. Limnology

218. Paleobiology

224. Vertebrate Zoology

229. Morphogenetic Systems

235. Evolutionary Systematics

236. Human Genetics

238. Systematic Zoology

239. Biogeography

245. Radiation Biology 246. Physical Biology

248. Introductory Biochemistry

250. Physiological Ecology of Marine Animals

252. Comparative Physiology

254. Fluid Flow and Living Systems

258. Laboratory and Research Methods

260. Advanced Cell Biology

262. Cytological Materials and Methods

265. Seminar in Chromosome Biology 266. Seminar in Chromosome Biology

274. Marine Invertebrate Zoology

275. Invertebrate Zoology

277. Endocrinology of Marine Animals

278. Invertebrate Embryology

280. Principles of Genetics

286. Evolutionary Mechanisms

286L. Evolutionary Mechanisms

288. Seminar on the Role of the Cell in Development and Heredity

295, 296. Seminar

351, 352. Departmental Seminar

353, 354. Research

355, 356. Seminar

360, 361. Tutorials



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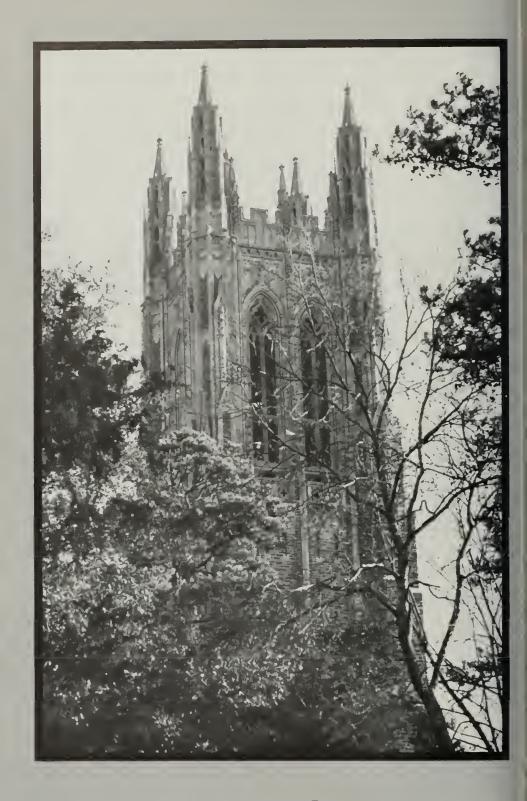
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Walter W. Johnson, Jr., B.M.Ed., Assistant to the Director of Medical and Allied Health Education Howard N. Lee, A.B., M.S.W., Assistant to the Director of Medical and Allied Health Education Ann M. Rimmer, Administrative Assistant to the Director of Medical and Allied Health Education

OFFICE OF DUKE HOSPITAL

Stuart M. Sessoms, M.D.. Director, Duke Hospitol Richard H. Peck, A.B., M.H.A., Administrative Director, Duke Hospitol Delford L. Stickel, M.D., Associate Director (Medicol) Wilma A. Minniear, R.N., M.S.N., Director of Nursing Services Wallace E. Jarboe, Director, Hospital Project Monogement Office



General Information



History

In 1924, James Buchanan Duke established The Duke Endowment, and thus made possible the creation of Duke University.

I have selected Duke University as one of the principal objects of this trust because I recognize that education, when conducted along sane and practical, as opposed to dogmatic and theoretical, lines is, next to religion, the greatest civilizing influence. I have selected hospitals as another of the principal objects of this trust because I recognize that they have become indispensable institutions, not only by way of ministering to the comfort of the sick, but in increasing the efficiency of mankind and prolonging human life. . . . I very much hope that the people will see to it that adequate and convenient hospitals are assured in their respective communities. . . . It is to these rural districts that we are to look in large measure for the bone and sinew of our country.

The School of Medicine and Duke Hospital, then a 400-bed facility, were opened in 1930 under the leadership of the first dean, Dr. Wilburt C. Davison. Today the hospital, with over 800 beds, is one of the largest private hospitals in the South. Duke University Medical Center has become a leader in contemporary medicine; by its continued dedication to educational programs, it has been closely involved in the development of the allied health field.

Programs in hospital administration and dietetics were initiated at the Medical Center in 1930. Programs in several disciplines dealing primarily with the laboratory aspects of clinical medicine began soon afterward. Due to marked advances in the field of medicine, new allied health programs were developed in the early 1960s to assist in the many medical specialties. Today there are over 300 students enrolled in Duke University allied health programs.

The Division of Allied Health officially represents the interests of these health-related educational programs by being the liaison with the entire medical complex. It coordinates all student and faculty activities within the Allied Health Education Building and provides for such varied educational services as the planning and evaluation of courses and circulation of instructional materials.

Resources for Study

Libraries. The Perkins Library, among the finest university libraries in the country, contains over 2,500,000 volumes and 4,200,000 manuscripts. About

100,000 volumes are added annually. Separate departmental and professional

school libraries provide notable collections in several disciplines.

The Medical Center Library, located in the Davison Building, attempts to provide all services and collections necessary to further educational research and clinical activities in the medical field. Extensive reference and bibliographic services are provided. The collection exceeds 137,000 volumes; 1,800 periodicals are also currently received. The Trent Collection on the history of medicine is an unusually fine collection of manuscripts and rare books and provides an opportunity for study, research, and casual reading.

The library in the Durham Veterans Administration Hospital contains over 3,000 books and receives 185 journals. It also supplies a reference and bibliographic service to both staff and residents. In addition, literature searches are

made upon request.

The Media Learning Laboratory, located in the Allied Health Education Building, has ten study carrels equipped to handle audiovisual materials, including slides, videotapes, and 8 mm loop films. Through this laboratory individuals may also order audiovisual materials from both the Duke University and Veterans Administration hospitals.

Audiovisual Educational Facilities. Duke University Medical Center's Division of Audiovisual Education and the Veterans Administration Hospital's Medical Illustration Service have production facilities in medical art, photography, and television. These serve the allied health programs by providing all types of audiovisual materials for teaching, research, and patient care. The close working relationship that exists between the two production facilities has resulted in a two-channel television link. This provides transmission of a variety of educational programs, including grand rounds and Network of Continuing Medical Education (NCME), between the hospitals. Instruction in the use of audiovisual materials and methods is a part of the course of instruction in several of the allied health programs. Media workshops are also provided as requested by faculty and students.







Computing Facilities. The Duke University Computation Center provides faculty and students with a facility for research and instruction in computing. It is presently equipped with an IBM 370 Model 135 which is connected by high-speed lines to an IBM Model 165 located at the Triangle Universities Computation Center (TUCC) in the Research Triangle Park. In addition to the University's center, there are two medium-speed terminals and several low-speed keyboard terminals available on the campus.

Hospitals. Duke University Hospital, an 800-bed facility, has a dual purpose of providing both patient care and professional education. Comprehensive diagnostic and treatment facilities are provided at various levels of patient care ranging from intensive to minimal care units. Private, semi-private, and ward accommodations are utilized by the more than 23,000 patients admitted each year. Special diagnostic and treatment units such as the cardiac catheterization laboratory, hemodialysis laboratory, and the hyperbaric oxygenation chamber are also housed in the hospital. Outpatient services include the public clinics, private clinics, and the emergency service. Duke Hospital is fully accredited by the Joint Committee on Accreditation of Hospitals and is approved for internship and residency training by the Council on Medical Education of the American Medical Association.

The Durham Veterans Administration Hospital is located within walking distance of the Duke University Medical Center. All full-time professional staff members of the hospital are also members of the faculty of the Duke University School of Medicine. The Veterans Administration Hospital, a 489-bed facility, provides the Duke University Medical Center with an excellent opportunity for closely integrated student teaching and house staff training.

Other patient care facilities directly affiliated with the Medical Center include the North Carolina Cerebral Palsy Hospital, a 40-bed residential rehabilitation center for children; Highland Hospital, a 125-bed psychiatric facili-

ty: and Sea Level Hospital, a 72-bed general hospital.

Several of the allied health programs have affiliations with other hospitals and medical institutions for clinical instruction.

Instructional Facilities. In 1971, the Veterans Administration opened a 15,000 square foot, two-story Allied Health Education Building. It provides a number of classrooms, laboratories, and offices especially designed for education in allied health fields. Special emphasis has been placed upon the utilization of audiovisual materials in the instruction of students, which include the self-instructional media learning laboratory, closed-circuit television, and other support facilities.

Student Life

Living Accommodations. Due to the shortage of residential space, students enrolled in allied health degree and/or certificate programs are not eligible for dormitory accommodations. A limited number of apartments are available in the Central Campus Apartment complex, and suitable living arrangements are available in nearby areas. Information concerning housing is provided on request by the Department of Housing Management, Duke University, Durham, North Carolina 27706.

Dining Facilities. Several dining facilities located in and near the Medical Center are available to students. In the Duke University Union Building, there are two cafeterias and a dining room. There are also cafeterias in the Graduate Center and the Veterans Administration and Duke hospitals.

Student Aid. Federally insured guaranteed loans up to \$1500 are available



to full-time allied health students through Duke University. Most programs are approved for veterans education benefits (G.I. bill) for those who are eligible. Students are encouraged to pursue every available source of support through their local and state student loan and assistance programs. Many of the programs have some student support available through stipends, special scholarships, or tuition loan plans. Every effort will be made to assist the student with tuition and living expenses. However, as funds are limited, prior indebtedness will not be given favorable consideration as part of the student's budget. Any applicant anticipating need for financial aid should consult with the director of his program or write: Coordinator, Financial Aid, 123 Davison Building, Box 3005, Duke University Medical Center, Durham, North Carolina 27710.

Student Health Service. The facilities of the University Health Services Clinic located in the Pickens Building are available year-round to all allied health students. The clinic provides outpatient treatment, routine laboratory and X-ray examinations, and many other services. These benefits are provided free to students who pay full Duke University tuition. All other allied health students may purchase these services.* The coverage described above does not extend to spouses and children. However, dependents are eligible to use the facilities of the Duke University Medical Center, as are all members of the community, but they are responsible for health costs incurred. The clinic is open from 8:00 a.m. to 7:00 p.m., Monday through Friday; 9:00 a.m. to 7:00 p.m., Saturday; and from 2:00 p.m. to 7:00 p.m., Sunday and holidays.

Student Health Insurance. In order to provide 24-hour protection to students for accidents and sicknesses not covered by the Student Health Services, the Student Accident and Sickness Insurance policy is available. Benefits include payment of hospitalization and surgical and medical fees. Persons are covered on and off campus, at home, while traveling between home and school, and during interim vacation periods. The premium for a student for the year 1975-76 is \$36.60; for student and spouse, \$105.30; and for student, spouse, and child, \$131.95.

Athletic Events. All students paying the full Duke University undergraduate tuition are issued Duke University identification cards and may attend all home intercollegiate athletic contests. Graduate students and those enrolled in the certificate programs may purchase a book of tickets for regular season home football and basketball games.

Judicial System and Regulations. Duke University expects and requires of all its students full cooperation in developing and maintaining high standards of scholarship and conduct. Each student is subject to the rules and regulations of the University as currently in effect or as are, from time to time, put into effect by the appropriate authorities of the University. At the same time, the individual is responsible for decisions and choices within the framework of the regulations of the community as Duke does not assume in loco parentis relationships.

Any student, in accepting admission, indicates his willingness to subscribe to and be governed by these rules and regulations and acknowledges the right of the University to take such disciplinary action, including suspension or expulsion, for failure to abide by the regulations or for other conduct adjudged unsatisfactory or detrimental to the University.

A copy of the Student Honor System including a code of ethics, rules of conduct, and judicial procedures will be provided each student.

^{*}The cost per student for these services in 1974-75 was \$4.65 per month.



Bachelor of Health Science Degree Programs



Duke University Medical Center awards a Bachelor of Health Science degree to students who complete either the Medical Technology, Pathology Assistant, or Physician's Associate program.

Medical Technology

ADMINISTRATION

Chairman, Department of Pathology: Robert B. Jennings, M.D., Professor of Pathology

Chairman Emeritus: Thomas D. Kinney, M.D., R. J. Reynolds Professor of Medical Education

Medical Director, Medical Technology Program: Frances K. Widmann, M.D., Associate Professor of Pathology

Program Director, Medical Technology Program: Margaret C. Schmidt, MT(ASCP), M.A.T., Associate in Pathology

Education Coordinators, Medical Technology Program: Cynthia L. Wells, MT(ASCP), B.S.; Donna L. Orti, MT(ASCP), B.S.

FACULTY MEMBERS

Associate Professor: Dolph Klein, Ph.D.

Assistant Professors: Peter H. Anderson, Ph.D.; Robert L. Habig, Ph.D.; Peter Zwadyk, Ph.D.

Associates: John A. Bittikofer, Ph.D.; Philip A. McHale, Ph.D.

Instructors: Edwin M. Bumgarner, MT(ASCP), M.P.H.; Roberta S. Jacobs, MT(ASCP), B.S.; Ardell M. Proctor, MT(ASCP), M.S.; Robert F. Wilderman, B.S.

Clinical Teaching Staff: John Carr, B.S.; Betty R. Crews, MT(ASCP); Jean T. Crute, MT(ASCP); Anne L. Finch, MT(ASCP); Robert L. Hoover, B.S.; Norma J. Lester, MT(ASCP); Miriam Marshall, M.T.; Valerie E. Walker, MT(ASCP); Irene A. Wyatt, MT(ASCP).

Program of Study. The Medical Technology program is a two year baccalaureate program, with courses taught during the academic year. Each term of the junior year consists of three required courses and one elective course. Selection of the elective course will depend on transfer credits accepted by Duke University Medical Center toward the B.H.S. degree and requirements of the National Accrediting Agency for Clinical Laboratory Sciences. The senior year is spent in didactic courses and student and clinical laboratories of Duke University Medical Center facilities.

Curriculum. Students must complete the following:

Junior Year

Course Weight

1

1

| Foll Semester | | Course Weight |
|-----------------------|---|---------------|
| PTH 120 | Immunology and Immunohematology | 1 |
| PTH 121 | Blood and Body Fluids | 1 |
| PTH 132 | Medical Microbiology | 1 |
| *PTH 102 | Basic Human Physiology | 1 |
| *ZOO 151L | Principles of Physiology | 1 |
| †Elective | (If biology and physiology requirements are completed.) | 1 |
| Spring Semester | | |
| PTH 107 | Human Pathology | 1 |
| CHS 110 | Medical Uses of Computers | 1 |
| PTH 112 | Instrumentation | 1 |
| Elective or Statistic | s Courses | 1 |
| | Senior Year | |
| Foll Semester | | Course Weight |
| | | |

| | 150, | 131 | , 132, |
|---|------|-----|--------|
| - | | | |

PTH 114

PTH 122

| Two Clinical La 150, 151, 152, or | boratory Courses to be assigned from PTH 153. | 1 (each) |
|--------------------------------------|---|----------|
| Spring Semester | | |
| PTH 124 | Educational Techniques for the Health Professional | 1/2 |
| PTH 126 | Laboratory Supervision and Manage- ment | 1 |
| PTH 195 | Student Seminar | 1/2 |
| Two Clinical La 150, 151, 152, or | boratory Courses to be assigned from PTH 153. | 1 (each) |

Medical Chemistry

Parasitology

The above curriculum provides sixteen course credits in the junior and senior years and should satisfy requirements for students who wish to be eligible for MT(ASCP) Certification.

Prerequisites for Admission. Applicants must satisfy the general admission requirements for the Bachelor of Health Science degree and must have earned at least a C+ average in their science courses. A total of four major content courses (sixteen semester or twenty-four quarter hours) is required in chemistry including at least one course in organic chemistry. Quantitative analysis will be accepted in lieu of the second semester of organic chemistry. Four major content courses (sixteen semester or twenty-four quarter hours) are required in biology. If possible, one course should be in physiology and one in general bacteriology. If the applicant presents only three courses in biological sciences, the fourth course must be taken in the junior year. One course in college mathematics is also required.

Application Procedures. Applications must be submitted by March 1 of the year for which admission is requested, and must contain the following:

^{*}Either PTH 102 or ZOO 151L may be taken.

[†]Elective Courses may be selected from the following (see Bulletin of Duke University, Undergraduate Instruction, for course descriptions): Botany 103, 156; Zoology 180, 117, 248; Psychology 93; Sociology 141; History 158; Mathematics 53.

- 1. A completed Duke University Medical Center Allied Health application form, including a nonrefundable fee of \$20;
- 2. Official transcripts from all colleges and universities or other academic institutions attended;
- 3. Scholastic Aptitude Test scores from the College Entrance Examination Board; and
- 4. Three letters of recommendation, one from a professor of biological sciences, one from a professor of chemistry, and one from a college adviser.

All applicants will be notified by May 15 regarding admission to the Program. Requests for further information and application forms should be directed to: Program Director, Medical Technology Program, Duke University Medical Center, Durham, North Carolina 27710.

Special Expenses. Textbook expenses for the first year are approximately \$100; for the second year, \$150. The cost of uniforms for the second year is approximately \$100.

Financial Aid. A small amount of University loan funds is available. In addition, residents of North Carolina may obtain financial aid from the North Carolina Medical Care Commission.

Pathology Assistant

ADMINISTRATION

Chairman, Department of Pathology: Robert B. Jennings, M.D., Professor of Pathology Chairman Emeritus: Thomas D. Kinney, M.D., R. J. Reynolds Professor of Medical Education Director, Pathology Assistant Program: Philip C. Pratt, M.D., Professor of Pathology Associate Director, Pathology Assistant Program: Kenneth R. Broda, M.A., Associate Assistant Director, Pathology Assistant Program: Judith L. Rissman, B.A.

FACULTY ADVISORY BOARD

Professors: Donald B. Hackel, M.D.; William W. Johnston, M.D.; Philip C. Pratt, M.D.; Joachim R. Sommer, M.D.; F. Stephen Vogel, M.D.

Assistant Professors: Dolph O. Adams, M.D., Ph.D.; Ralph C. McCov, M.D.

FACULTY

Assistant Professors: Robin Vollmer, M.D.; Jane Gaede, M.D.; Peter Zwadyk, Ph.D. Associates: John P. Pickett, H.T. (ASCP); Margaret C. Schmidt, MT (ASCP), M.A.T.

Instructors: Chief. Medical Illustration Service (VAH): Floyd Willard, B.S., R.B.P.; Assistant Director, Division Audiovisual Education, DUMC; Wayne Williams, A.B., R.B.P.; Cynthia L. Wells, MT (ASCP), B.S.; Roberta S. Jacobs, MT (ASCP), B.S.; Donna L. Orti, MT (ASCP), B.S.; Ardell M. Proctor, MT (ASCP), M.S.

The Pathology Assistant Program is designed to meet the growing need for trained personnel to assist the anatomic pathologist in the areas of surgical and autopsy pathology including histopathologic technique. Upon completion of the program, the student will have acquired knowledge and skills that will permit him to fill an important role in the medical field. The pathologist is a physician and scientist whose primary functions are the study and diagnosis of disease. He customarily has the responsibility for the direction of the clinical and anatomic pathology services in the hospital.

Program of Study. The program is two calendar years in length and includes four semesters of both practical and academic training and two summer externships. The externships, conducted in the Department of Pathology, are three months in length and consist of practical training in anatomic pathology. Upon successful completion, the Bachelor of Health Science degree and a certification of achievement are awarded.

Curriculum. Students must complete the following:

Junior Year

| Fall Semester | | Course Weight |
|--------------------|----------------------------------|---------------|
| ANA 101 | Human Anatomy | 1 |
| PHS 102 | Basic Human Physiology | 1 |
| PTH 102 | Histopathological Interpretation | 1 |
| PTH 121 | Blood and Body Fluids | 1 |
| PTH 106 | Basic Pathology | 1 |
| Spring Semester | | |
| PTH 200 | Pathology | 2 |
| PTH 160 | Autopsy Technology | 11/2 |
| PTH 162 | Histologic Technology | 1 |
| | Senior Year | |
| Fall Semester | | Course Weight |
| PTH 110 | Systemic Pathology | 1 |
| PTH 161 | Medical Photographic Technology | 1 |
| PTH 132 | Medical Microbiology | 1 |
| PTH 168 | Autopsy Practicum | 1/2 |
| One elective cours | se* | 1 |
| Spring Semester | | |
| PTH 164 | Clinical Diagnostic Methods | 1 |
| PTH 165 | Surgical Pathology | 1 |
| PTH 168 | Autopsy Practicum | 1/2 |
| Two elective cour | | |

^{*}Electives may be chosen from courses offered by the Department of Pathology or from undergraduate junior or senior level courses approved by the department.

Two summer externships arranged by the Pathology Assistant program are required for certification.



Prerequisites for Admission. Applicants must satisfy the general admission requirements for the Bachelor of Health Science degree. Enrollment is very limited and selection is based on the applicant's academic record, test scores, experiences, and evidence of his general aptitude and capability as indicated by the letters of recommendation. The Pathology Assistant program does not require patient contact experience and accepts applicants who do not have past health related experience.

Application Procedures. Applications must be completed by May 1 of the year for which admission is requested and must contain the following:

- 1. A completed Duke University Medical Center Allied Health application form, including a nonrefundable fee of \$20;
- 2. Official transcripts from the armed forces and all high schools, colleges, or other academic institutions attended:
- 3. Scholastic Aptitude Test scores from the College Entrance Examination Board: and
- 4. Three letters of recommendation, one from a science professor and the remaining from individuals who have knowledge of the student's professional or educational qualifications.

All applicants will be notified by June 1 regarding admission to the program. Requests for further information and application forms should be directed to: Kenneth R. Broda, Associate Director, Pathology Assistant Program, Department of Pathology, Duke University Medical Center, Durham, North

Special Expenses. Books will cost approximately \$150, and the required uniforms about \$50.

Financial Aid. Students who have been officially accepted into the program will receive a \$200 per month stipend from the Veterans Administration Hospital for each of the twenty-four months of their training. In addition, those students demonstrating further need may be eligible for student loans and scholarships explained on page 4.

Physician's Associate

PHYSICIAN'S ASSOCIATE PROGRAM ADMINISTRATION AND COURSE DIRECTORS

Chairman: E. Harvey Estes, Jr., M.D., Deportment of Community Heolth Sciences

Program Director: Michael Hamilton, M.D., Chief of Division for Heolth Teom Development ond Assistont Professor of Community Heolth Sciences

Medical Director: Robert Warner, M.D., Fellow in Cordiology

Surgical Director: Patrick Kenan, M.D., Associote Professor of Otoloryngology

Associate Director: Reginald D. Carter, Ph.D., Assistont Professor of Community Health Sciences and Physiology

Assistant Director of Education: John J. McQueary, B.A., R.P.A.

Coordinator of Surgical Services: Paul S. Toth, B.S., R.P.A.

Assistant Director for Legal Affairs: Nancy Shaw, J.D.

Director of Finances: Edward H. Pope

FACULTY

Professors: Arthur Christakos, M.D.; Suydam Osterhout, M.D., Ph.D.

Associate Professors: Gert H. Brieger, M.D., Ph.D.; Thomas Cate, M.D.; Malcolm H. Rourk, M.D.; Frances Widmann, M.D.

Assistant Professors: Collin F. Baker, Ir., M.D.; Charles Blake, Ph.D.; Marjorie A. Boeck, Ph.D.; Byron K, Cole, M.D.; William J. Kane, M.D.; Thomas T, Thompson, M.D.; Alan D. Whanger, M.D. Assistant Adjunct Professors: Donald Calbreath, Ph.D.; Philip McHale, Ph.D.; Chau Wu, Ph.D.



PHYSICIAN'S ASSOCIATE PROGRAM ADVISORY CONSULTANTS

Eugene A. Stead, Jr., M.D., Professar of Medicine, Chief Advisory Consultant Sewell H. Dixan, Jr., M.D., Chief Resident in Surgery, Moses Cane Memorial Haspital, Greensboro, Narth Carolina

James C. Mau, B.S., Executive Director, Medical Private Diagnostic Clinic Jay S. Skyler, M.D., Notional Institutes of Health, Bethesda, Maryland

More than a decade ago clinicians at the Duke University Medical Center concerned with the application of new diagnostic and therapeutic procedures found they could safely and effectively delegate many of their tasks to non-physicians. Because of the scarcity of nurses and other allied health professionals, the specialists relied primarily on ex-military corpsmen with previous health-related education and experience. Dr. Eugene A. Stead, Jr., then Chairman of the Department of Medicine at Duke, recognized the potential of the corpsmen experiment and concluded that the clinicians' use of military paramedical personnel might be readily adapted to augment the primary care physician in an effort to solve the health care shortage dilemma.

The physician's associate possesses a broad understanding of medicine and is capable of approaching a patient, eliciting a complete history and performing a thorough examination, organizing the data, and presenting it in such a way that a physician can visualize the medical problem. He assists the physician in performing the appropriate diagnostic and therapeutic procedures. In addition, physician's associates provide patient care services such as cast application and removal, wound suturing, dressing changes, after-hour laboratory studies, and assessing and monitoring the progress of ill patients. Duke University Medical Center offers a certificate to those students who meet the requirements of the Physician's Associate Program but do not have the necessary number of undergraduate hours to qualify for the Bachelor of Health Science degree.

Program of Study. The curriculum is twenty-four consecutive months and has been developed to provide all students with an in-depth understanding of the medical sciences and their application to a clinical discipline. It consists of nine months of course work in basic medical sciences followed by fifteen months of clinical work. All students are required to complete eight weeks of inpatient service and eight weeks of outpatient and emergency service. Students must also complete forty weeks of elective clinical experience in family practice, internal medicine, pediatrics, surgery, and obstetrics and gynecology. Because the clinical teaching is carried out in many varied settings, students should plan on being away from the Durham area for part of their clinical experience.

Curriculum. Before proceeding into the clinical phase of the curriculum, students must satisfactorily complete the following:

| D | $c_{1:-}$ | l C ~ l | reduli | _ |
|---|-----------|-------------|--------|---|
| | | | | |

| Foll Semester | | Course Weight |
|-----------------|---|---------------------------------|
| ANA 101 | Basic Human Anatomy | 1 |
| PHS 102 | Basic Human Physiology | 1 |
| PTH 101 | Basic Clinical Chemistry | 1 |
| MED 115 | Laboratory Procedures | 1/2 |
| MED 110 | Clinical Medicine and Patient Evaluation including Human Interaction | 11/2 |
| Spring Semester | | |
| PHS 101 | Introductory Pharmacology | 1 |
| MIC 101 | Introductory Microbiology | 1/2 |
| PTH 107 | Human Pathology | 1 |
| RAD 101 | Introductory Radiology | 1/2 |
| SUR 101 | Experimental Surgery | 1 2 |
| MED 111 | Clinical Medicine and Patient Evaluation II including Electrocardiography | 1 ¹ / ₂ 5 |
| Elective | | |
| CHS 102 | Introduction to Health Care* | 1 |

After satisfactory completion of all basic science courses, students must complete the following:

Clinical Schedule

| Offitigat Outotate | | | | |
|--------------------------------------|-----------|----------|--|--|
| General Inpatient Service | 2 courses | 8 weeks | | |
| General Outpatient Emergency Service | 2 courses | 8 weeks | | |
| Four elective courses required | 4 courses | 16 weeks | | |
| for B.H.S. degree† | 8 courses | 32 weeks | | |

In addition to the above clinical courses required for the B.H.S. degree, students must also complete:

| Four elective courses required | 4 courses | 16 weeks |
|---|-----------|----------|
| for certificate‡ Primary Care Medicine§ | | 10 weeks |

^{*}This course is taught during the fall semester and is required for certification.

[†]Selection of electives is determined in accordance with specialty training guidelines from a number of four or eight week rotations. Courses are taken during the spring and fall semesters of the second year.

^{\$}Same as above except courses are taken during summer session of first year.

[§]This rotation is taken only during the summer of the last year.

Prerequisites for Admission. Applicants must satisfy the general admission requirements for the Bachelor of Health Science degree and they should have taken an acceptable college level course in chemistry and biology. Students must have a minimum of 2,000 hours (one full year) in the health field involving direct patient contact. Experience gained as a medical corpsman, medical technologist, radiologic technologist, registered/practical nurse, inhalation therapist, or in other medical fields also fulfill this requirement.

Application Procedures. Applications must be submitted by February 1 of the year for which admission is requested and must contain the following:

- 1. A completed Duke University Medical Center Allied Health application form, including a nonrefundable fee of \$20;
- 2. Official transcripts from the armed forces and all high schools, colleges, or other academic institutions attended;
- 3. Scholastic Aptitude Test scores of the College Entrance Examination Board: and
- 4. Three letters of recommendation, one from an immediate supervisor, one from a physician with whom the applicant has worked, and one from an acquaintance of five or more years.

All applicants will be notified by April 15 regarding admission to the program. Requests for further information and application forms should be directed to: Director of Admissions. Physician's Associate Program, P.O. Box CHS 2914, Duke University Medical Center, Durham, North Carolina 27710.

Special Expenses. Books for the program will cost approximately \$175, equipment \$270, and uniforms \$70.

Financial Aid. It is possible to receive the entire amount of tuition through the Duke University tuition loan plan. Due to the limited amount of money available, requests are considered individually and approved on the basis of financial need. The Physician's Associate Program has limited funds available for defraying living expenses. These are distributed on the basis of need and should not be expected to provide students with total subsistence. Part-time employment for students is available in many areas of the Medical Center. Frequently such employment can net students about \$100 per month and not jeopardize their education. Students must comply with the academic schedule and are prohibited from working more than fifteen hours per week.

Academic Procedures and Information

GRADING AND GRADE REQUIREMENTS

Final grades on performance in academic work are sent to students after the examinations at the end of the fall and spring semesters.

Passing Grades. Passing grades are A, exceptional; B, superior; C, satisfactory; and D, low pass. A passing grade may be modified by a plus or minus. A Z may be assigned for the satisfactory completion of the first semester of a two-course sequence. This permits an instructor to assign an earned grade for the entire year during the grading period for the second course of the sequence.

The D Grade. Although the D grade represents low pass, no more than two courses passed with D grades may be counted among the thirty-two courses required for graduation.

Failing Grades. A grade of F or U (see pass/fail option below) indicates that the student has failed the course, which is recorded on the student's record. If

he registers for the course again, a second entry of the course and the new grade earned is made on the record, but the first entry is not removed.

Pass/Fail Grading Option. With the consent of the instructor and program director, a student may choose to be graded on a pass/fail basis in one elective course each semester or summer session.

A student enrolling in a course on a pass/fail basis completes all the work of the course but receives either a pass (P) or fail (U) in lieu of a standard grade. After the first two weeks of classes in any semester, no student may change his status to or from a pass/fail basis. A pass grade may not subsequently be converted to a regular letter grade nor may the course be retaken on a regular credit basis.

Grades When Absent from Final Examination. In all cases in which a student is absent from a final examination, he receives an X instead of a final grade. If he does not present an acceptable explanation for his absence to the Office of the Associate Director of Medical Education for Allied Health within forty-eight hours after the scheduled time of the examination, the X is converted to an F. If the absence is excused by the Associate Director, the student arranges with the instructor for a make-up examination. An X, not cleared by the end of the semester following the examination missed, is converted to an F. (See Final Examinations and Excused Absences on page 19.)

Grades for Incomplete Work. If because of illness or other emergency a student's work in a course is incomplete, he may receive an *I* for the course instead of a final grade. Incomplete courses must be completed before the close of the succeeding semester; otherwise, the *I* is converted to an *F*. Seniors must complete all courses before graduation. In case a student whose work is incomplete is also absent from the final examination, he receives an *X* for the course.

For the purpose of determining if a student satisfies continuation requirements, an *I* is counted as failing to achieve satisfactory performance in that course.



GRADUATION AND CONTINUATION REQUIREMENTS

Continuation Requirements. A student must achieve a satisfactory record of academic performance and make satisfactory progress toward graduation each semester. To remain in the University a student must not fail two or more courses in any semester. If a student, for any special reason, has been permitted to enroll for three or fewer courses, he is required to pass all courses.

Students are reminded that in cases where continuation is in question, incomplete work in any course is counted as a failure to achieve satisfactory performance in that course. Such courses must be completed in time for final grades to be submitted to the Registrar no later than the day preceding the opening of the spring semester or June 15 in the summer.

Any student excluded under the provisions of this regulation may at his request have his case reviewed by the Associate Director of Medical Education for Allied Health.

Requirements for Degree. To be graduated a student must pass a minimum of thirty-two courses (including the sixteen courses required for admission) and all courses prescribed in his program of study. Of the courses required for graduation, no more than two courses with *D* grades will be accepted.

Residence Requirements. At least sixteen semester-courses must be completed satisfactorily at Duke. This must include the final four semesters.

Commencement

Degrees are awarded in May at commencement exercises to those who have completed requirements at the end of either regular semester of the academic year. Those who complete degree requirements at the end of a summer term become eligible to receive diplomas dated September 1. but no commencement exercises are held for such graduates, and the diplomas are mailed in December, after final approval by the University faculty and Trustees.

Eligibility for Academic Honors

To determine eligibility for academic honors, only letter grades earned at Duke, with the exception of the P (pass) grade, enter into the calculation of the average.

Dean's List. In recognition of academic achievement, juniors who carry a normal academic load and earn a *B* average or higher in the two semesters of an academic year are placed on the Dean's List if the following additional requirements are met:

- 1. Six semester-courses must be presented in which grades other than P have been awarded.
- 2. No student receiving an incomplete or failing grade within the academic year shall be placed on the Dean's List.

Class Honors. Students in the junior year who carry a normal academic load and earn a B+ average on all work for the year are eligible for Class Honors provided the following conditions are also met:

- 1. Six semester-courses must be presented in which grades other than *P* have been awarded.
- 2. No student receiving an incomplete or failing grade within the academic year shall be eligible for Class Honors.

Graduation Honors. Full-time or part-time students who earn the following averages for all work taken at Duke are graduated with honors: a *B* average

earns a degree cum laude; a B+ average earns a degree magna cum laude, and an average of A- or above earns a degree summa cum laude.

Course Information

The unit of credit for academic work is the semester-course. Double-courses and half-courses are recognized.

Transfer Credit. Duke credit may be granted for course work satisfactorily completed at other regionally accredited, degree-granting institutions. Courses in which grades of less than C- have been earned are not accepted for transfer credit. The semester-course credit unit awarded at Duke for satisfactorily completed courses cannot, of course, be directly equated with semester-hour or quarter-hour credits. A semester's work accepted as a normal course load by the other institution transfers as a block of four course units at Duke, provided the courses taken at the other institution are acceptable by Duke as Duke course









equivalents or electives. Ordinarily, a transfer student will not be awarded more than four course units for one semester's work unless he has satisfactorily completed more than the normal course load at the institution from which he transfers. All courses approved for transfer credit are listed on the student's permanent record at Duke (unless the student has received a degree) but grades earned in such courses are not recorded.

Courses taken at other institutions are evaluated by the Medical Center Registrar.

Students who transfer to Duke may receive credit for a maximum of two years of work at other institutions of approved standing. No credit is given for work completed by correspondence, and credit for no more than two semester-courses is allowed for extension courses.

Course Load and Eligibility for Courses. The normal and expected course load each semester is four to five semester-courses. To take fewer than four or more than five semester-courses in any semester, a student must have the approval of the program director and the Associate Director of Medical Education for Allied Health. No student, however, may take more than six courses in any semester.

Course Audit. With the written consent of the instructor and the program director, a full-time degree student is allowed to audit one or more courses in addition to the normal program. After the first two weeks of classes in any semester, no student classified as an auditor in a particular course may take the course for credit, and no student taking a course for credit may change classification to an auditor. A student may not repeat for credit any course he has previously audited. Auditors submit no daily work, take no examinations, and receive no credit for courses.

Course Changes After Classes Begin. Students, with the approval of the program director, may drop and add courses during the first two weeks of classes. Courses added during the second week of classes require, in addition, the approval of the appropriate instructor.

Students may drop a course without penalty until the time mid-semester grades are assigned if clearly carrying a course overload. Factors such as poor health or necessary outside work are also considered in permitting withdrawal from courses without penalty. A W is entered on the permanent record in lieu of a grade in all cases where withdrawal without penalty is approved. After the time limit has expired, withdrawal from any course will ordinarily result in a grade of F. Courses discontinued prior to mid-semester without approval will also be assigned an F.

Class Attendance and Excused Absences

Responsibility for class attendance rests with the individual student. He is expected to attend classes regularly and punctually and must accept the consequences of failure to attend. An instructor is privileged to refer to the Associate Director of Medical Education for Allied Health for suitable action students who in his opinion are causing their work or that of the class to suffer because of absences. When excessive absences result in a student's failure to carry a normal course load, the Associate Director of Medical Education for Allied Health, after a conference with the student, will determine whether the student may continue his enrollment in the college.

Absences from required classes and tests ordinarily are excused only for illnesses certified by a proper medical official of the University, and for authorized representation of the University in out-of-town events. Officials in

charge of groups representing the University in such events are required to submit names of students to be excused to the Office of the Associate Director of Medical Education for Allied Health forty-eight hours before absences are to begin.

Final Examinations and Excused Absences

Customarily an examination is the final exercise in an undergraduate course, but it is understood that not all courses profit from this process. Therefore, unless departmental policy stipulates otherwise, the conduct of the final exercise is determined by the instructor, except that a final written examination may not exceed three hours in length and a final take-home examination may not require more than three hours in the actual writing.

Absences from final examinations are excused by the Associate Director of Medical Education for Allied Health only in exceptional circumstances, such as illness certified by a medical official of the University or other conditions beyond the control of the student. A student who misses a final examination must notify the Office of the Associate Director of Medical Education for Allied Health within forty-eight hours after the scheduled time of the examination. Failure to so notify and to present an acceptable reason for his absence from the examination will result in the student's receiving an *F* in the course.

Changes in Status

Withdrawal and Readmission. A student who wishes to withdraw from the University must give official notification to the Associate Director of Medical Education for Allied Health. Withdrawals at student initiative prior to the Thanksgiving recess in the fall semester or prior to April 15 in the spring semester are coded as voluntary, and a W is entered in lieu of a grade for each course. Voluntary withdrawals after these dates are permitted only in the event of emergencies beyond the control of the student.

Applications for readmission are made to the Medical Center Registrar. Each application is reviewed by the admissions committee of the program to which the student applies. A decision is made on the basis of several criteria including the applicant's academic record at Duke, his prospects of completing requirements for graduation, his citizenship record at Duke, evidence of his increasing maturity and discipline, the degree of success attendant upon his activities during the time away from Duke, and finally the applicant's relative standing among the group of students applying for readmission.

Leave of Absence. A student in good standing may apply in writing to the Associate Director of Medical Education for Allied Health to take a leave of absence for one or two semesters. He must apply before the end of the fall semester for a leave of absence during the spring semester, and before July 15 for a leave of absence during the fall semester. If the leave is approved, the student must keep the Associate Director informed of any change of address.

Full-Time and Part-Time Degree Status. Normally, undergraduate students who are candidates for degrees are expected to enroll for a normal course load each semester. A student who needs to change from full-time status, or from part-time to full-time status, must have the approval of the program director and the Associate Director of Medical Education for Allied Health. For special reasons approved by the program director and the Associate Director, a full-time degree student who is qualified to continue may register in a part-time degree status for no more than two courses.

Other Information

Release of Student Records. No confidential information contained in student records (academic or otherwise) is released to non-University persons or to unauthorized persons on the campus without the consent of the student. Consent is evidenced by each student's signing a form which authorizes the release of personal data. The form may provide for the release of information to one or more persons or agencies only, or it may be a blanket release. Blank forms to authorize or revise the permission are available in the office of the program directors.

Identification Cards. Undergraduate students are issued two-part identification cards which they should carry at all times. The cards are the means of identification for library privileges, university health services, athletic events, and other University functions or services open to them as University students. Students will be expected to present their cards on request to any University official or employee.

The cards are not transferable, and fraudulent use may result in loss of student privileges or suspension. A student should report the loss of this card immediately to the Registrar's Office. The cost of a new identification card is \$5.

Admission

Students seeking admission to the Bachelor of Health Science degree programs must have completed two years of study at an accredited institution. In addition they must have a minimum of sixteen course equivalents (60 semester hours) of transferable credit including at least one course in English, three in natural science, three in social sciences or history, and one in humanities. Additional requirements are listed in the description of the programs.

Financial Information

TUITION AND FEES

Estimated Expenses for an Academic Year. Certain basic expenditures such as tuition, board, and room are to be considered in preparing a student's budget. These necessary expenditures, with a reasonable amount allotted for miscellaneous items, are shown below:

Tuition \$3,030 per year
Books, uniforms, and supplies \$150-\$250 per year
Food \$121 per month
Lodging \$99 per month
Miscellaneous (travel, laundry, clothing, etc.) \$95 per month

Debts. No records are released and no student is considered by the faculty as a candidate for graduation until he has settled with the Bursar for all indebtedness.

Bills may be sent to parents or guardians provided the Bursar has been requested in writing to do so. Failure to pay bills on or before the due dates will bar the student from class attendance until the account is settled in full.

Tuition. The tuition charge of \$1,515 per semester (\$3,030 for the academic year) is due and payable not later than the day preceding the first day of classes for a particular semester.

Registration Fees and Deposits. On notification of acceptance, students are required to pay a nonrefundable first registration fee of \$25. Students in the



Physician's Associate Program are required to make a deposit of \$75. The deposit will not be refunded to accepted applicants who fail to matriculate. For those who do matriculate, the deposit is applied to the cost of tuition.

Late Registration. Students who register in either semester at a date later than that prescribed in the Calendar must pay to the Bursar a fee of \$10.

Part-time Students. In the regular academic year students who register for no more than two courses in a semester are classified as part-time students. Part-time students will be charged at the following rates: One course, \$310.00; half-course, \$155.00; quarter-course, \$77.50; one course plus laboratory or precept, \$413.00. Registration for more than two courses requires payment of full tuition. Graduate students registered for undergraduate courses will be assessed 3 units for non-laboratory courses and 4 units for laboratory courses. Nondegree men and women students beyond usual college age who are on review for admission to degree programs, as designated by the Office of Continuing Education, pay fees by the course whether the course load is one, two, or three courses.

Auditors. Auditing of one or more courses without charge is allowed students paying full fees, provided that the consent of the instructor is obtained. Students who are enrolled for one or two courses may audit other courses by payment of \$40 for each course audited. With the consent of the appropriate instructor and the Registrar, graduates of Duke may audit undergraduate courses for \$40 each course.

Duke Employees. Full-time employees with one or more years of service with the University may request permission to take for credit or audit up to two courses during any one semester. Permission may be granted based on the individual merits and circumstances of each application. Employees receiving permission to take such courses for credit will be charged one-half of the tuition rate for part-time students as shown above. Courses may be audited upon payment of \$40 per course.

Fees for Transcripts. Requests for transcripts of academic records should be directed to the Office of the Medical Center Registrar. A minimum fee of \$2, payable in advance, is charged for a single copy.

Refunds

If a student withdraws, his tuition is refunded according to the following schedule:

| Withdrawal | Refund |
|-----------------------------|-------------|
| Before classes begin | Full amount |
| During first or second week | 80% |
| During third to fifth week | 60% |
| During sixth week | 20% |
| After sixth week | None |

Courses of Instruction

Courses numbered from 150 through 189 either list specific prerequisites or have as prerequisite the completion of the junior year in one of the programs.

Double numbers separated by a hyphen indicate that the course is a yearcourse and must normally be continued throughout the year if credit is to be received.

ANATOMY

ANA 101. Basic Human Anatomy. A lecture-laboratory discussion course that examines human morphology and the fundamental relationships among the neurologic, musculo-skeletal, cardiovascular, gastrointestinal, respiratory, renal, and reproductive systems. The course includes cadaveric presentations of every major region of the human body. Intended primarily for students in allied health programs. One course. Blake and Staff

COMMUNITY HEALTH SCIENCES

CHS 102. Community Health Sciences. A description of the development of key ideas concerning modern scientific medicine and broad social questions regarding the medical profession. Topics include: the social roles of patients as well as physicians, the public image of medicine, the impact of various historical epochs such as the industrial revolution, and changing attitudes toward poverty and welfare will be presented. The various systems for the delivery of health care, the nature and implications of pending health care legislation, health care cost and payment mechanisms, and types and extent of health care services provided by both public and private agencies are examined. In addition, there will be discussions of the social and cultural aspects of health, dealing with the terminally ill, euthanasia, genetic engineering and human subject experimentation. Epidemiology and statistical principles will also be included. One course. Boeck, Brieger, and Staff

CHS 110. Medical Applications of Computers. This lecture, laboratory, and demonstration course will introduce the student to computer use for calculational and non-numeric computation through use of a higher order language (e.g., FORTRAN), and to the uses of computers in ongoing medical and medicine-related projects in the Duke-Veterans Hospital complex. The practical assignments, in conjunction with lectures and demonstrations, will permit the students, as part of the course, to write, evaluate, or analyze a problem-directed program. One course. McHale and Staff

CHS 150. General Community Medicine. An eight week rotation in which the student learns to compile a data base about common office and hospital

problems facing community practitioners and maintain problem-oriented medical records while aiding the physician in the evaluation and care of the patient. Two courses. Stoff

CHS 151. Family Practice. An eight week clinical experience surveying the components of family practice, including emotional conflicts and interpersonal relationships with the patient and other members of the family unit. Through experience in interviewing and examining patients, the student is exposed to the multifaceted approach of understanding and treating physiologic and sociologic components of disease processes. In this situation, an understanding of the common diseases treated by primary care practitioners and the aspects of the unique relationship a physician's associate experiences with private patients, their physician, and other health team members is developed. Two courses. Kone and Stoff

CHS 152. Rehabilitation. An eight week rotation studying the treatment of limitations caused by disease and injury. The student receives training in patient rehabilitation through participation in both inpatient and outpatient physical and occupational therapy services and weekly medical-surgical-rehabilitation conferences. Instruction is oriented toward the early return to work of disabled employees and matching physical capabilities with job demands. Two courses. Roberts and Rehabilitation Stoff

CHS 153. Introduction to Occupational Medicine. During this eight week rotation the student studies the field of occupational medicine including its history, particularly in the United States; legislation dealing with the protection of workers, including Workmen's Compensation; types of occupational health hazards; industrial toxicology and occupational disease; and in-plant medical programs. Seminars, reading, case studies, and field work will be required. Two courses, Goldwoter

CHS 180. Primary Care Medicine. A ten week clinical experience in association with a community-based practitioner to acquaint the student with those aspects of the practice of medicine unique to the community setting. In the hospital the student makes rounds with the physician and assists him in fulfilling his inpatient responsibilities. In the office, the student learns about management procedures in a private practice and helps the physician by providing services consonant with his individual background and clinical training. Required for Certificate. Estes, Homilton, and Stoff

CHS 191. Independent Study. This special course enables students, on an individual basis, to select with program administrators a series of objectives and to develop a program that can reasonably be expected to achieve those objectives. One course. Estes, Homilton, and Staff

MEDICINE

MED 110-11. Clinical Medicine and Patient Evaluation. A didactic lecture course taken concurrently with Patient Evaluation. The major problems which patients present and the use of a data base (historical information, physical examination, laboratory parameters) relating to these problems enabling the student to extract a problem list are discussed. Detailed information about the more important aspects of disease states prevalent in the United States causing the demand for health service and the characteristics of both the normal and abnormal disease states are examined. Students meet in groups of four with one instructor for bedside experience in the techniques of obtaining meaningful health histories and performing thorough physical examinations. Students are

taught to record patient data using the format of a problem oriented medical record and then to present such information orally to the supervising physician. Enrollment is limited to physician's associate and nursing students. Three courses. Warner, Baker, Cole, and Staff

MED 115. Laboratory Procedures. Principles of microscopy, colorimetry, analytical measurements, and spectrophotometry are presented. Students develop skills for performing routine hematologic and urinary analytic procedures. Discussion and lectures are concerned with physiologic derangements best examined by these techniques. One-half course. McQueary ond Stoff

MED 150. Inpatient Medicine. An eight week fulltime required clinical rotation in which the student learns to apply his basic medical knowledge to the problems and situations encountered on an inpatient service. By collecting a data base, formulating a complete problem list, participating in daily rounds, participating in the management of patient problems, the student develops an awareness and understanding of the multiple aspects of disease processes and becomes familiar with therapeutic regimen and dispositions relative to specific disease states. The student will present the data base of each new patient to the supervising physician or attending rounding physician in a coherent, concise fashion. Two courses. Staff

MED 151. Outpatient Medicine. An eight week fulltime required clinical rotation in which the student learns to apply his basic medical knowledge to the common problems and situations encountered on an outpatient/emergency service. The student assists the staff by taking histories, completing physical examinations, initiating emergency care consistent with triage findings reviewed by the resident staff, performing routine diagnostic laboratory studies, and arranging for and tabulating data from other diagnostic studies. Two courses. Stoff

MED 152. Intensive Care. A four week rotation that acquaints the student with the acute and intensive care required for patients who have undergone major and complex surgical procedures, suffered massive and severe complicating cardiorespiratory collapse or other life-threatening medical crises. Emphasis is placed on ventilatory assistance, cardiopulmonary resuscitation, fluid and electrolyte replacement, and acid-base balance under resident physician supervision. One course. Stoff

MED 153. Cardiology. A four or eight week rotation during which the indication, limitations, and methods of performing necessary diagnostic procedures for the evaluation of disorders of the cardiovascular systems are studied. Students conduct initial patient evaluations including the history and physical examination and perform relevant diagnostic and therapeutic studies including familiarity with electrocardiographic and phonocardioscan studies. One or two courses. Cordiology Stoff

MED 154. Cardiovascular Laboratory. During this four or eight week rotation the student studies the physiology and pathophysiology of common acquired and congenital heart diseases. Patients' histories, physical examinations, and laboratory findings are correlated with the hemodynamic and angiographic findings obtained during cardiac catheterization. The student learns the indications, usefulness, and possible complications of different cardiac-catheterization and other diagnostic procedures and develops skill to assist the physician in performing them. In addition, one learns the general setup of a cardiac catheterization laboratory and to develop skills to operate various X-ray and electronic equipment used in cardiac catheterization. One or two courses. Cordiology Stoff

MED 155. Endocrinology. A four or eight week rotation designed to acquaint the student with endocrinological diseases with an emphasis placed on obtaining the defined endocrine data base and appropriate treatment of the disease. Students attend all daily rounds and conferences while on the service. They are taught the indications, limitations, and methods of performing diagnostic procedures including: glucose, tolbutamide, and arginine tolerance tests; thyroid function tests; and urinary steroid determinations. Students educate patients with endocrine diseases about their disease processes, diagnostic evaluations, and therapies. One or two courses. Endocrinology Staff

MED 156. Gastroenterology. During this four or eight week rotation students study the diagnosis, pathophysiology, and essentials of therapy of various gastroenterologic problems. They learn to perform and interpret the following diagnostic procedures; nasogastric intubations and gastric analyses (both with and without fluoroscopy), secretin tests, rectal and small bowel biopsies, proctoscopies, sigmoidoscopies, and gastroscopies. He also learns to care for endoscopic and biopsy instrument and biopsy specimens. One or two courses. Gastroenterology Staff

MED 157. Hematology-Oncology. During this four or eight week rotation the student learns to recognize physical abnormalities, especially those relevant to hematologic and oncologic problems, and to measure and record these on grid sheets; the classical symptomatic expression for some of the most frequent neoplastic disorders; and to recognize and diagnose the most frequent, common anemias. In addition, he learns to perform a peripheral blood differential of the white cells; the principles of blood transfusions and steps in the management of untoward reactions to blood; and to assist at procedures such as thoracentesis, paracentesis, bone marrow aspiration, bone marrow biopsy, and spinal lumbar puncture. The proper way to approach patients with serious and lifethreatening illness so that history taking and discussion can be meaningful, but not threatening to either the patient or the student is explained. One or two courses. Hematology Staff

MED 158. Hyperbaric Medicine. A four or eight week rotation providing an understanding of the importance and relationship of detailed patient work-ups specifically related to patients requiring the services of the hyperbaric chamber. The indications, limitations, and scope of hyperbaric services; an understanding of the proper use of the hyperbaric chamber; and the progress of patients under and/or following hyperbaric therapy, including pre- and post-treatment rounds, are covered in this course. One or two courses. Pulmonary Staff

MED 159. Allergy and Respiratory Disease. A four or eight week rotation that provides an in-depth exposure to patients with respiratory and allergic conditions. The problems encountered by patients who have respiratory ailments are studied in detail as are the associated special history and physical examination techniques and diagnostic and therapeutic procedures (including allergy skin testing, eosinophilic nasal smear counts, sputum evaluation, chest X-ray, and ventilatory therapy). The student participates in daily rounds and teaching conferences on respiratory diseases and gains a knowledge of the therapeutic regimen, their indications, availability, reliability, and limitations in the treatment of respiratory and allergic diseases. One or two courses. Pulmonary Staff

MED 160. Nephrology. During this four or eight week rotation, the student learns to meaningfully gather and record information in a problem oriented manner about patients with renal and hypertensive diseases. He becomes able to recognize the effects of disease, therapy, and education on the patient's course and plays a major role in patient education. The fundamentals of renal

function, urinalysis, radiography of the chest, urinary system and bones, and the principle of dialysis are covered. One or two courses. Nephrology Staff

- MED 161. Neurology. A four or eight week rotation dealing with neurological problems through the inpatient and outpatient care and evaluation of neurologic patients including specialized history and physical techniques used in diagnosing neurologic diseases. Performing diagnostic and therapeutic procedures including lumbar punctures. tolerance testings, intravenous infusion of medications, complete blood counts, spinal fluid analyses, and blood cultures are part of this course. Scheduling procedures carried out in radiology, nuclear medicine, and the electroencephalographic laboratory, and assisting in the expedition of patient studies are required during training. The student develops an understanding of neurologic procedures, including electroencephalography, brain scan studies, pneumoencephalography, and central nervous system radiologic dye studies. Discharge physical examinations and recording narrative summaries to ensure chart completion are carried out as directed. The student is required to attend all daily public and private teaching rounds and neurological conferences. One or two courses. Neurology Staff
- MED 162. Rheumatology. This four or eight week rotation provides an indepth exposure to rheumatologic disease. Students learn therapeutic techniques specifically related to rheumatology patients; learn to carry out detailed specialized patient evaluations: learn the handling and care of necessary specimens and equipment; and develop competence in performing diagnostic procedures required in the evaluation and treatment of rheumatologic patients. The scope of the course includes the therapeutic regimen and the indications, availability, reliability, and limitations in the treatment of rheumatologic disease. One or two courses. Rheumatic and Genetic Diseases Staff
- MED 163. Dermatology. During this four week rotation, the student obtains histories and performs physical examinations on both inpatients and outpatients with special emphasis on problems concerning dermatologic diseases, as well as carrying out potassium hydroxide preparations, skin biopsies, and tissue scrapings on prescribed patients. The student becomes familiar with the diagnostic procedures and therapeutic regimen and their indications, availability, reliability, and limitations in the treatment of dermatologic diseases. One course. Tindall and Dermatology Staff
- MED 164. Infectious Disease. A four week rotation surveying the findings and effects of numerous pathogenic bacteria and fungi as they relate to infectious disease processes. The student learns to plant bacterial cultures; to perform gram-staining techniques; to read culture plates; to set up simple diagnostic procedures; to interpret antibiotic susceptibility tests; and to correlate laboratory findings with the clinical manifestations of infectious diseases. One course. Osterhout and Staff
- MED 165. Clinical Infectious Disease. During this four week rotation, the student learns to approach patients with infectious diseases; to gather a data base from them; and to understand the manifestations of the illnesses and the rationale for therapy. One course. Staff
- MED 189. Internal Medicine. This forty-eight week experience in multiple aspects of internal medicine is substituted for the usual curriculum. The objectives are the same as for the course in inpatient medicine, outpatient medicine, and intensive care. Twelve courses. Staff

MICROBIOLOGY

MIC 101. Introductory Microbiology. An introduction to diagnostic microbiology covering such topics as microbial morphology, staining characteristics, growth requirements, diagnostic tests, and antibiotic susceptibility testing. The clinical aspects of such subjects as pyogenic cocci. gram-negative sepsis and nosocomial infection, meningitis, venereal disease, enteric infection, anaerobic pathogens, tuberculosis, mycotic diseases, viral infections, and the use of antibiotics are also included. One-half course. Osterhout

OBSTETRICS AND GYNECOLOGY

OBG 150. Obstetrics/Gynecology. An eight week clinical experience studying a broad spectrum of obstetrical and gynecological problems. While on the obstetric service, the management of pregnancy, labor, and delivery including antenatal, natal, and postnatal complications is taught. The student is responsible for taking obstetrical histories, performing obstetrical physical examinations, and following patients through labor, delivery, and the early postpartum period. While on the gynecologic service, the student is exposed to methods and programs relating to cancer detection, venereal diseases, and birth control. Learning to take gynecologically oriented patient histories and perform complete and accurate gynecologic examinations is required. Attendance at all obstetrical and gynecological teaching rounds, conferences, and seminars is also required. Two courses. Staff

OBG 151. Office Gynecology. A four week clinical experience reviewing a spectrum of gynecologic disease processes. The student is exposed to programs relating to cancer detection, venereal disease, and birth control. Learning to take gynecologically oriented patient histories and perform accurate gynecologic examinations is required. While on the rotation the student is familiarized with the principles of office gynecology and participates in daily rounds, teaching conferences, and seminars. One course. Staff

OPHTHALMOLOGY

OPH 150. Ophthalmology. This is an eight week rotation reviewing the major ophthalmologic diseases. Through lectures, teaching rounds, and learning special history and physical examination techniques, the student develops an expertise in determining visual fields, visual acuity, and oculotonometry. The principles of refraction and the many medical and surgical therapeutic regimens available for treating ophthalmologic disorders are included. The student is also required to participate in the routine care of ophthalmologic inpatients and outpatients. Two courses. *Staff*

PATHOLOGY

PTH 101. Basic Clinical Chemistry. An introduction to physiological chemistry including normal human metabolism and its control and the alterations of normal metabolism induced by disease or stress. Students are taught to correlate laboratory findings with the cellular metabolic events taking place and to communicate the normal and abnormal phenomena to physicians, nurses, and other health personnel using appropriate terminology, and to explain common situations to patients. By studying the metabolic control and disease alterations, the student is able to suggest appropriate measures to further delineate the problem and to provide a therapeutic approach. One course. Calbreath and Staff

- PTH 102. Histopathological Interpretation. The student is presented a wide background of knowledge in tissue and cell morphology and physiology. Emphasis is placed on cellular and subcellular structures which help develop tissue types. A synthesis of current concepts of ultrastructure is related to those of light microscopy. Students learn to evaluate and interpret, under light microscopy, those features which distinguish one tissue from another. The interrelationships between cytology, histology, and organology is stressed. One course, Broda and Rissman
- PTH 106. Basic Pathology. Basic principles which will enable the student to develop an ability to analyze disease are presented. These main principles include the study of circulatory disturbances: degenerative processes; infiltrations and metabolic disorders; disturbances of development and growth; the inflammatory process, including etiologic and pathogenic considerations, regeneration and repair; and neoplasia. Lectures and discussions within these categories will be presented by the faculty as well as by the student. One course. Broda and Rissman
- PTH 107. Human Pathology. The general categories of disease processes will be presented through specific diseases of organ systems. Diseases will be selected for presentation because they epitomize individual etiologic categories, and/or because they occur so commonly in the general patient population that it is important for the student to understand how the abnormal processes are translated into clinical events. One course. Widmann and Staff
- PTH 110. Systemic Pathology. Disease processes are studied via methods and techniques utilized in organ system dissection as they pertain to autopsy pathology specimens. Clinicopathologic correlation is stressed utilizing gross and microscopic examples of disease processes, case studies, lectures and demonstrations. One course. Prerequisites: PTH 102, 106, 200. Staff
- PTH 112. Instrumentation. Principles of major types of advanced laboratory instruments: continuous flow analysis, electronic particle counting, thin-layer and gas chromatography, scintillation counting, specific instruments such as GEMSAEC, Automated Chemical Analyzer, etc. are discussed. The student will acquire sufficient understanding of operating principles so that he can provide normal maintenance and first-level repair on major types of laboratory instruments, and can apply theoretical principles to the development of new methodologies for these machines. One course. Bittikofer, Wilderman, and Orti
- PTH 114. Medical Chemistry. The course deals with the following topics: the biochemistry of disease, with emphasis on diagnostic tests; statistical methods as applied to the study of normal populations, abnormal populations, and the individual patient; pitfalls in diagnostic biochemistry and the influence of multiple variables; evaluation of test methods in terms of technical requirements, cost, accuracy, etc. Principles and techniques of nuclear medicine, with emphasis on laboratory methodology are included. One course. Anderson, Orti, Wells, and Staff
- PTH 120. Immunology and Immunohematology. Presentation of the immune response, both cellular and humoral, and the primary and secondary diseases which affect these systems. Other topics include: the diagnostic and therapeutic implications of fungal, bacterial, and viral antibodies; the antigens of red blood cells, white blood cells, and other tissue sites, and the spontaneously occurring and acquired antibodies to them; collection, processing, and storage of blood for transfusion purposes. One course. Widmann, Zwadyk, and Wells

PTH 121. Blood and Body Fluids. This course will discuss both primary

and secondary hematologic diseases, with consideration of clinical and laboratory techniques for diagnosing disorders of red blood cells, white blood cells, platelets, hemostatic mechanisms and blood volume. The section on body fluids will include physiologic alterations and laboratory findings related to urine, cerebrospinal fluid, joint fluid, effusions, and feces. One course, Widmann, Schmidt, and Wells

- **PTH 122. Parasitology.** Lecture and correlative student laboratory sessions present information on epidemiology, life cycles, and identification procedures for the more common animal parasites which infect man. One course. Bumgorner ond Jocobs
- PTH 124. Educational Techniques for the Health Professional. The course is designed to prepare the student to communicate technical and theoretical material to peers. to students at the post high school level and above, and to other health professionals. Topics include the construction of tests at various levels, methods to evaluate effectiveness of communication in situations less structured than formal examinations, and the use of audiovisual equipment and construction of effective visual aids for information transmission. One-half course. Schmidt and Stoff
- **PTH 126.** Laboratory Supervision and Management. Principles of group supervision, with consideration of work patterns, laboratory design, laboratory staffing, personnel relations, equipment evaluation, and procurement are presented. Review of federal regulations affecting laboratories, personnel, hospitals, etc. is included. One course. Wildermon, Orti, and Stoff
- PTH 132. Medical Microbiology. Introduction to the morphology and physiologic activities of bacteria and medically significant fungi, as well as functional aspects of viruses. Extensive consideration is given to microorganisms in the etiology of disease; the interaction of host and invader; the epidemiology of nosocomial infections; and the mechanisms of antimicrobial therapeutic agents. The laboratory sessions will develop beginning expertise in isolating and identifying commonly pathogenic organisms, and in the techniques required for bacterial and fungal propagation, anti-bacterial susceptibility assays, and environmental surveillance. One course. Zwodyk, Proctor, and Jocobs
- **PTH 150.** Clinical Microbiology. Eight weeks of clinical education in diagnostic microbiology laboratories of Duke and VA Hospitals. Prerequisites: PTH 132 and PTH 122 (PTH 150 and PTH 122 may be taken concurrently). One course. Klein and Zwodyk; Course Coordinator: Jocobs
- **PTH 151.** Clinical Immunology-Serology. Eight weeks of clinical education is given in techniques and applications of principles in immunohematology and serology. Prerequisite: PTH 120. One course. Widmonn ond Zwadyk; Course Coordinator: Wells
- **PTH 152.** Clinical Blood and Body Fluids. Eight weeks of clinical education in the study of blood elements and measurements. Expertise in recognizing pathologic conditions in both blood and body fluids is gained. Prerequisite: PTH 121. One course. Widmonn; Course Coordinator: Schmidt
- **PTH 153.** Clinical Chemistry. Eight weeks of clinical education in biochemistry laboratories of Duke and VA Hospitals. Prerequisites: PTH 112 and PTH 114. (PTH 153 and PTH 114 may be taken concurrently.) One course. Anderson and Hobig; Course Coordinator: Orti
- **PTH 160.** Autopsy Technology. During this eight week on-the-job training period, the student is introduced to autopsy dissection techniques and general anatomical pathology protocol. He learns various dissection techniques and the

proper procedure for completing autopsy cases. These include evisceration, organ block dissection, tissue preparation for histology, microscopic evaluation, and final protocol completion. Prerequisites: PTH 102. 106. One and one-half course. Staff

- PTH 161. Medical Photographic Technology. This course offers the student, via lecture and practical assignments, basic photographic theory and principles including lighting, optics, photo-chemistry, camera handling techniques, color film selection, exposure determinations, and film processing as applied to pathology. The student will be given the opportunity to become proficient in such technical aspects as developing and preparation of developing materials, printing of photographs, lighting and background techniques, photographing of specimens, both in situ and in display, and photomicrography. One course. Veterans Administration Hospital and Duke University Medical Center Medical Illustration Departments
- **PTH 162.** Histologic Technology. During the six week rotation in histology the student is presented the knowledge necessary for the preparation of tissue slides. Following this he is taught the basic principles of tissue processing, which include: fixation, decalcification, hand and automatic processing, blocking, embedding, cutting and staining, specific staining and histochemical procedures, cryostat and other frozen section methods. tissue manicuring for processing, and certain electron microscopic and cytologic techniques. One course. Prerequisites: PTH 102, 106. Histology Staff
- **PTH 164.** Clinical Diagnostic Methods. The course is designed to instruct the student in technical and clinical laboratory procedures which are utilized in the diagnosis of disease. Emphasis is placed upon selection and interpretation, rather than the performance of the various procedures. One course. Prerequisites: PTH 106, 110, 200. Staff
- **PTH 165.** Surgical Pathology. Students are instructed in gross and microscopic pathology as it pertains to surgical specimens. Gross and microscopic findings are correlated with clinical observations while the student learns the proper procedural handling of selected specimens. Problems in dermatology, gynecology, orthopaedics, general surgery, internal medicine, and other specialties will be considered. The program of study will consist of lectures, demonstrations. and laboratory work. One course. Prerequisites: PTH 106, 110, 200. Staff
- **PTH 168.** Autopsy Practicum. The student having completed PTH 160 is now expected to function on the autopsy service by participating in necropsy dissections with resident staff. He will be required to attend and participate in all departmental conferences concerning gross autopsy pathology. One course. Prerequisites: PTH 106, 160, 200. Staff
- **PTH 195. Student Seminar.** Topics in medical laboratory science presented by the student to his peers and medical technology faculty. Topic selection to be approved by the faculty. One-half course. *Schmidt*, *Wells*, *Orti*, and *Jacobs*
- PTH 200. Pathology. Fundamentals of pathology are presented by correlating gross and microscopic material to illustrate the structural changes in disease. Lectures consisting of broad concepts of disease processes are presented by senior faculty and conferences with small groups of students are held under the guidance of staff members. Etiology and pathogenesis of disease as well as the experimental approach are emphasized for the purpose of correlation with clinical disease. In addition to group work, conferences are scheduled to discuss problems derived from autopsies. Students are required to collaborate in

postmortem studies and present cases in clinical-pathologic conferences under the direction of the staff. Prerequisites: PTH 101, 102, 106. Staff

Elective Courses

Qualified senior students, in the Pathology Assistant program, who have successfully completed PTH 106 and PTH 200 may choose elective classes in specialized areas of pathology. The following is a list of all electives offered during the course of an academic year:

PTH 166. Pathological Basis of Clinical Medicine

PTH 167. Seminars in Basic Oncology

PTH 169. Cardiovascular Pathology

PTH 170. Subcellular and Molecular Pathology

PTH 171. Advanced Neuropathology

PTH 172. Fundamentals of Electron Microscopy

PTH 173. Histochemistry

PTH 174. Renal Pathology

PTH 175. Seminars in Diseases of the Liver and Biliary System

PTH 176. Orthopaedic Pathology

PTH 177. Neonatal and Pediatric Pathology

PTH 178. Environmental Pathology

PTH 179. Pulmonary Pathology

PTH 180. Immunopathology

PTH 181. Pathology of Virus Infections

PTH 182. Forensic Pathology

PTH 183. Conferences and Techniques on Gross Autopsy Pathology

PTH 184. Ophthalmic Pathology

PTH 185. Diagnostic Cytopathology

PEDIATRICS

PED 150. General Pediatrics. The major objective of this four or eight week course is to provide the student an overview of pediatric practice with emphasis on the well child and his health supervision. The student is exposed to childhood illnesses and normal variations of growth and development. Besides learning to take third party histories and perform pediatric physical examinations, the student observes and participates in the activities of the intensive care nursery, and learns specific techniques used in the care of the immature and newborn. One or two courses. Rourk and Staff

PED 151. Pediatrics Outpatient. During this four or eight week rotation the student gains an appreciation of the preventive medicine basis of all of pediatrics. He learns to assess children with minor illnesses, order appropriate studies, instruct the mother in reasonable home care, and calls the physician's attention to complications of minor illnesses. He gains an overall appreciation of the subspecialties of pediatrics; gains experience in proper record keeping on outpatients, and of the importance of updating all problems on each visit; and is able to recognize the acutely ill child who requires immediate physician attention. One or two courses. Rourk and Staff

PED 152. Intensive Care. A four week rotation that acquaints the student with the acute and intensive care required for patients who have undergone major and complex surgical procedures, suffered massive and severe trauma involving multiple organ systems or experienced sudden complicating cardiorespiratory collapse or other life-threatening medical crises. Emphasis is placed on ventilatory assistance, cardiopulmonary resuscitation, fluid and electrolyte replacement, and acid-base balance under resident physician supervision. One course. Staff

PED 153. Pediatric Chest and Allergy. During this four or eight week rota-

tion the student is taught to obtain a complete history and physical examination with emphasis on the allergy data base and the structure of the family. He gains an understanding of the impact of chronic illness on the child and his family. He gains an understanding of home care programs and is able to alter them to fit a family's ability and resources. He is able to carry out appropriate diagnostic procedures and assess the results for children with pulmonary disease. One or two courses. Staff

PED 154. Full Term Nursery. During this four or eight week rotation the student learns to collect the maternal history accurately and completely as it pertains to the product of current pregnancy; to recognize those maternal conditions imposing risks on the full term infant; to correctly collect samples for newborn screening laboratory exams; to reliably examine a full term infant and distinguish those who are abnormal from those who are normal; and to give cogent instructions to mothers regarding home care of the infant. One or two courses. Staff

PED 155. Clinical Research Unit. A four or eight week rotation covering diversified pediatric inpatient problems. The student develops proficiency in a variety of clinical procedures used in evaluating complex pediatric conditions. Attendance at all daily teaching rounds is required as well as carrying out diagnostic studies as instructed by the attending physician including: routine laboratory analyses, tolerance testing (intravenous glucose, insulin and tolbutamide studies), intravenous catheterizations, venous cutdowns, nasogastric intubations, and gastric analyses. The student is responsible for eliciting, recording, and reporting clinical and laboratory data and expanding the ability to correlate clinical signs and symptoms with laboratory data. One or two courses. Sidbury and Clinical Research Unit Investigators

PHYSIOLOGY

PHS 101. Introductory Pharmacology. A lecture-seminar course developed to acquaint the student with the relationship between drugs and living systems. Chemotherapeutic agents are classified and studied in groups with the emphasis placed on understanding the functions and characteristics of commonly used prescription drugs. One course. Wu, Abou-Donia, and Staff

PHS 102. Basic Human Physiology. A lecture-demonstration course in which the functions of major organ and tissue systems and their contributions to total body homeostasis in health and disease are discussed. The interpretation of laboratory findings in view of known physiological parameters and the communication, using appropriate terminology, of these findings to physicians and other health care professionals as well as to the patient and his family is stressed. One course. *McHale and Staff*

RADIOLOGY

RAD 101. Introductory Radiology. A review of roentgen anatomy and an introduction to the uses of radiology in the care of patients. Students learn the basic clinical concepts and develop skills in performing basic scanning and routine radiographs. Half-course. Thompson and Staff

SURGERY

SUR 101. Experimental Surgery. An introduction to basic surgical principles and techniques and the fundamentals of aseptic technique needed in the preparation of the operative site and draping of the sterile field. Students learn

the basic principles of pre and postoperative management for the purpose of developing knowledge of the organism's management. Half-course. Kenen, Toth, and Staff

SUR 150. General Surgery. An eight week rotation that exposes the student to a great variety of clinical problems, crossing, at times, many so-called specialty lines. Emphasis on the gastrointestinal tract, general trauma, endocrine tumors, peripheral vascular reconstructions, congenital and pediatric surgical problems are inherent in this rotation. Basic surgical principles, as well as insights into many of the surgical specialties, can be learned on this service. Preoperative diagnostic principles and postoperative management rationale are emphasized. The most attractive feature of the rotation is the great diversity of surgical problems encountered. Each student is provided an opportunity to gain facility in patient care through management of patients with particular problems. The student is encouraged to use his previous training and knowledge of disease to better grasp how clinical diagnostic and care problems are managed, both in the operating room and on the ward. Two courses. Staff

SUR 151. Surgical Outpatient/Emergency. During this rotation the student is provided contact with a large number of ambulatory patients in order to provide experience and familiarity with the screening procedures and methods used to diagnose and treat ambulatory outpatients. He gains additional experience in history taking and physical examinations in an abbreviated manner, consistent with intensive care visits; evaluates the return patient and observes his clinical course over a period of time and gains confidence and facility in the necessary laboratory and diagnostic procedures required to manage patients in this setting. A familiarity with problems in the administration of the small surgical unit and in treating indigent patients is developed. One course. General and Thoracic Surgery Staff

SUR 152. Intensive Care. During this experience the student learns to recognize patients requiring intensive medical care; operates and maintains lifemonitoring equipment, understands and evaluates fluid electrolyte replacement and acid-base balance; and gains experience in cardiopulmonary resuscitation and ventilatory assistance. This experience may be gained on the respiratory care unit, medical care unit, intensive care nursery, surgical acute care unit, and pulmonary function-inhalation therapy. One course. *Staff*

SUR 153. Cardiothoracic Surgery. During this rotation, the student learns to perform a detailed history and physical examination with special emphasis on the cardiothoracic system. Through previous didactic and laboratory experience, the student should be able to gather and interpret standard laboratory data such as chest X-ray, WBC, and screening chemical profile. With special help from the resident and senior staff and through reading on his own, the student should be able to interpret special diagnostic procedures such as angiograms, pulmonary function studies, etc. In the operating room, the student will assist and follow the conduct of various open-heart and other major thoracic procedures. The resident, senior staff, and student will participate in the management of sophisticated procedures such as various arrhythmias, shock, fluid and electrolyte imbalance, as well as the more common procedures such as the insertion of chest tubes and intrapleural drainage procedures. One course. Cardiothoracic Staff

SUR 154. Cardiopulmonary By-Pass. This course is offered only to those students who plan to be employed by a cardiothoracic surgeon. The objective of this course is to observe and assist in the operation of the cardiopulmonary bypass machine. This course is not intended to make a student a by-pass techni-

cian, but rather to familiarize the student with the complexity of its operation and management. One course. Cardiothoracic Division and By-Pass Staff

SUR 155. Surgical Acute Care Unit. During this rotation the student is acquainted with the postoperative care of patients who have undergone surgical procedures or suffered massive and severe trauma involving multiple organ systems. Special emphasis is centered on ventilatory assistance problems, open heart cases, neurosurgical problems and massive trauma cases. Those patients



developing intraoperative complications requiring more than the usual short-term recovery care level are also cared for on the ACU. The variety of the patients and the diversity of the problems that exist on the Unit gives the student a wide range of insight into surgical postoperative management. The student should strive for an understanding of the pathophysiology, physiology, and the management of surgical postoperative patients in this setting. One course. Cardiothoracic Division Staff

SUR 156. Otolaryngology. An eight week clinical experience studying common otolaryngologic diseases. The student develops an understanding of emergency problems and how to initiate the first steps in the management of such problems. Evaluation of the otorhinolaryngologic patient by appropriate history and physical examination, following the course of disease processes and evaluating the response to treatment by the physician are required. Learning and performing tracheostomy care, assisting with the management of the pre and postoperative patients, assisting in the operating room, and learning to perform specialized audiometric tests are also required. Two courses. Otolaryngology Division and Staff

SUR 157. Plastic Surgery. An eight week experience studying maxillofacial cancer patients and patients with facial anomalies. There is extensive exposure to patients with burns of electrical, chemical, and thermal origin. The course objectives include an understanding of the preoperative and postoperative care of plastic surgical patients, recording the preoperative history and physical examination, performing indicated laboratory tests, and scheduling associated studies. Monitoring the postoperative development and assisting in the care of the postoperative patient in the plastic dressing room is required. The student develops a working understanding of fluid and electrolyte balance and administers intravenous therapy. Two courses. *Plastic Division and Staff*

SUR 158. Plastic Dressing Room. A four week experience with extensive exposure to the spectrum of congenital disease, cancer, and trauma treated by the plastic surgical service. The student actively participates in the preparation, debridement, and dressing of wounds; planning and following the patient's postoperative course; and recording the physical findings, progress, and prognosis in the patient's chart. All teaching rounds and conferences are required while on the service. One course. Division of Plastic Surgery

SUR 159. Surgical Anatomy. During this rotation the student is provided the opportunity to familiarize himself and to review the anatomy that will be most helpful during his clinical orthopaedic rotations. He works at his own pace on an orthopaedic problem under the direction of the physician in charge utilizing the teaching aids in the Department of Anatomy and also the medical library when appropriate. One course. *Staff*

SUR 160. Urology. An eight week rotation that studies urologic disease processes. Performing history and physical examinations on clinic and hospitalized patients is included. Participation in all clinical rounds and teaching conferences is required to develop an understanding of the therapeutic regimen, their indications, availability, reliability, and limitations in the treatment of urologic disorders. The student develops an understanding of urologic disorders and the indications for catheterization, cystoscopy, renal function studies, intravenous pyelograms, and urine chemical evaluations. Participation in the pre and postoperative care of the urologic patient, performing discharge physical examinations and writing narrative summaries for assigned patients is part of the course. Two courses. Division of Urology



Graduate Degree Programs



The Graduate School of Duke University awards a Master of Health Administration degree to students who complete the program in Health Administration and a Master of Science degree to students who complete the program in Physical Therapy. Both Health Administration and Physical Therapy are departments in the Graduate School and additional information, including courses of instruction, may be found in the Graduate School Bulletin which is available through the Office of Admissions, The Graduate School, Duke University, Durham, North Carolina 27706.

Health Administration

Associate Professor: B. Jon Jaeger, Ph.D., Choirmon, Deportment of Heolth Administration Professors: Stuart M. Sessoms, M.D.; David G. Warren, J.D.

Associate Professor: Louis E. Swanson, A.B.

Assistant Professors: Donald S. Smith, M.H.A., Director of Graduote Studies; Thomas J. Delaney, M.S.

Adjunct Associate Professors: Elizabeth J. Coulter, Ph.D.; Florence Kavaler, M.D., M.P.H.; Richard H. Peck, M.H.A.

Adjunct Assistant Professor: Arnold D. Kaluzny, Ph.D.

Research Associates: David J. Falcone, Ph.D.; D. Michael Warner, Ph.D.

Lecturers: Jeff H. Steinert; Robert G. Winfree, M.H.A.

The profession of health administration emerged early in this century in response to the increasing demand for health services. Over the years several specific areas of health administration have been identified, most notably, public health administration, hospital administration, medical care organization, and comprehensive health planning. All of these require a common set of managerial skills and a broad knowledge of the health system and its environment. It has been estimated that the system requires approximately 50,000 individuals in positions involving health administration. In recognition of the complexity and importance of hospitals, Duke University established the first graduate program in the nation for the training of hospital administrators in 1930.







Program of Study. Graduate study leading toward preparation for a career in the administration of all types of health organizations and programs is offered through a twenty-month academic program that leads to the Master of Health Administration degree. The academic portion is composed of five continuous semesters of graduate work of which ordinarily thirty-four units are within the department, fourteen units are in other departments of the Graduate School, and twenty-seven units are in courses offered through the Graduate School of Business Administration. Students without previous administrative experience in the health field are strongly encouraged to undertake a twelvemonth administrative residency following graduation. The residency is a period of varied administrative experience that is conducted under faculty supervision and is individually designed around each student's interests.

Curriculum. All students must complete the following:

First Year

| Fall Semester | | Credit | | |
|-----------------|--|---------|--|--|
| *HA 301 | The Health System and its Environment | 4 | | |
| †MS 300 | Managerial Economics | 4 | | |
| MS 310 | Mathematics for Management | 4 | | |
| BA 330 | Management of Information and Control Systems I | 3 15 | | |
| Spring Semester | | | | |
| HA 312 | Comparative Health Systems | 2 | | |
| HA 314 | Social Dimensions of Health Services | 2 | | |
| MS 320 | Organization Analysis & Operation Design | 4 | | |
| BA 311 | Probability & Statistics | 4 | | |
| BA 331 | Management of Information and Control Systems II | 3 15 | | |
| Summer Semester | | | | |
| HA 324 | Institutional Health Services | 4 | | |
| HA 326 | Health Economics | 2 | | |
| MS 312 | Operations Research | 4 | | |
| MS 349a | Cooperative-Competitive Strategy | 2 | | |
| MS 349b | Short and Long Run Planning | 3 15 | | |
| | Second Year | | | |
| Foll Semester | | | | |
| *HA 335 | Ambulatory Health Services | 3 | | |
| HA 322 | Public Policy and Health Care | 2 | | |
| | Management Concentration (Course I) | 4 | | |
| | Behavioral Sequence (Course I) | 3 | | |
| | Program Elective | 3 15 | | |
| Spring Semester | | | | |
| HA 346 | Community Health Services | 3 | | |
| HA 348 | Legal and Regulatory Constraints on Health Services | 2 | | |
| | Management Concentration (Course II) | 4 | | |
| | Behavioral Sequence (Course II) | 3 | | |
| | Program Elective | 3 | | |
| | | 15 | | |
| Third Year | | | | |
| HA 350 | The Administrative Residency | | | |
| HA 360 | Seminar in Health Administration | | | |
| | | | | |

^{*}Courses designated HA are taught by the Department of Health Administration. †Courses designated BA and MS are taught by the Graduate School of Business Administration.

Prerequisites for Admission. Applicants should have earned a baccalaureate degree from an accredited institution. Neither prior experience in health administration nor any particular undergraduate major is necessary. The only specific course prerequisite is one year of college-level calculus. However, individuals who have not had calculus, or whose preparation in mathematics is not adequate, can be admitted to the program provided they successfully complete a mathematics course in the summer offered jointly by the Department of Economics and the Graduate School of Business Administration. The essential criteria for selection are the applicant's potential to assume a leadership role in the organization and management of health care services and a demonstrated ability to complete satisfactorily the graduate curriculum.

Application Procedures. Applications must contain the following:

- 1. A completed Graduate School application form, which includes a nonrefundable fee of \$25:
- 2. Two official transcripts from each institution of higher learning attended:
- 3. Test results from the Educational Testing Service on the Admission Test for Graduate Study in Business, and the Aptitude Test of the Graduate Record Examination; and
 - 4. Three letters of recommendation.

Final decisions on the admission of applicants begin the first week in March, and applicants are notified of the action taken on their application as soon as a decision is made. Applications received later than this date will be considered promptly if class vacancies exist. Applicants who request financial awards must have their applications, with all supporting documents, filed by March 1. Requests for further information and application forms should be directed to: Admissions Committee, Department of Health Administration, Box 3018, Duke University, Durham, North Carolina 27710.

Tuition. The tuition for students enrolled in the Health Administration Program is \$106.67 per unit or \$1,600.05 per semester.

Financial Aid. Individuals needing assistance should discuss their situations with the department at the time of interview. Several graduate scholarships are available through the department. These include Duke University Graduate Scholarships, the Marshall I. and Sarah W. Pickens Scholarship, the Duke Hospital Auxiliary Scholarship, and the Equitable Life Assurance Society of the United States Scholarship that provides a \$1,000 award. Loan aid is available to students in the department from funds established by the W.K. Kellogg Foundation and the A.S. Aloe Charitable Trust, as well as from other University sources.

Physical Therapy

Acting Co-Chairman and Director of Graduate Studies; Eleanor F. Branch, Ph.D. Associate Professors: Eleanor F. Branch, Ph.D.; Elia E. Villanueva, M.A. Assistant Professors: Elaine M. Eckel, M.A.; Grace C. Horton, B.S. Associate: Nancy Stafford, B.S. Professor Emeritus: Helen L. Kaiser, P.T.

The Master of Science degree program is designed to provide a broad foundation in the art and science of physical therapy and to provide opportunities for the development of skills in health administration and supervision, curriculum development and directed teaching in physical therapy, and in advanced clinical education or research. The program is approved by the Council

on Medical Education of the American Medical Association in collaboration with the American Physical Therapy Association.

Program of Study. Completion of the curriculum requires two academic years and a summer practicum totaling fifty-two units (minimum) of graduate course work or equivalent academic exercise. Thirty-seven units are in physical therapy, nine in designated courses in anatomy and physiology, and the remainder in electives in related fields.

Curriculum. Students must complete the following:

First Year

Fall Semester

PT 201 Seminar in Physical Therapy PT 217 Physical Therapy Dynamics I

ANA 300 Gross Anatomy

Spring Semester

PT 218 Physical Therapy Dynamics II

PT 230 Physical Evaluation and Instrumenta-

tion

PT 236 Medical Sciences

PT 301 Introduction to Scientific Inquiry

Summer Semester

PT 242 Directed Clinical Experience in Phys-

ical Therapy I

Second Year

Fall Semester

PT 220 Physical Therapy Dynamics III

PT 332 Administration of Physical Therapy

Services

PT 341 Advanced Seminar

Plus six credit hours of electives.

Spring Semester

PT 243 Directed Clinical Experience in Phys-

ical Therapy II











Prerequisites for Admission. Requirements for admission are a baccalaureate degree and completion of prerequisite courses, although provisional acceptance can be approved if the major portion of the prerequisites have been completed at the time of application; final approval will depend upon satisfactory completion of the prerequisites before enrollment. A total of eight courses or the equivalent of thirty semester hours is required in the field of natural science including two to four courses in the biological sciences, with a course in physiology of human systems required; two to four courses in chemistry; and at least one course in physics. A total of five courses is required in the fields of social science and humanities, of which two must be in psychology. In addition, a course in introductory statistics is required.

Application Procedures. Applications must be submitted by February 1 of the year for which admission is requested and must contain the following:

- 1. A completed Graduate School application form, which includes a nonrefundable fee of \$15;
- 2. Two official transcripts from each institution of higher learning attended;
- 3. Test results from the Educational Testing Service on the Aptitude Test of the Graduate Record Examination; and
- 4. Three letters of recommendation, at least two of which should be from professors in the major field of study.

Requests for applications and further information should be directed to: Eleanor F. Branch, Ph.D., Acting Co-Chairman and Director of Graduate Studies, Department of Physical Therapy, Box 3965, Duke University Medical Center, Durham, North Carolina 27710

Tuition. The tuition for students enrolled in the Physical Therapy Program is \$105 per unit or \$1,575 per semester.

Financial Aid. A limited number of traineeships are offered through the Social and Rehabilitation Service of the Department of Health. Education and Welfare; awards are made by the Department of Physical Therapy.



Certificate Programs



Duke University Medical Center has responded to the increased need for qualified individuals at all levels in the health care system by developing educational programs designed to equip people for a variety of positions. These programs, which vary in admission requirements and length of training, offer students both clinical and didactic experience. Graduates of these programs are awarded certificates.

Clinical Psychology Internship

The Division of Medical Psychology, in cooperation with the Durham Child Guidance Clinic and the Durham Veterans Administration Hospital, offers internship training in clinical psychology to qualified doctoral students. The program, approved by the American Psychological Association, provides experience in many contexts with a wide diversity of patients. Internship training emphasizes experience in the traditional activities of clinical psychologists: assessment, consultation, psychotherapy, and research. Those successfully completing the requirements for internship will be awarded a Duke University Medical Center certificate. Correspondence concerning admission to the program should be directed to: Drew Edwards, Ph.D., Box 3364, Duke University Medical Center, Durham, North Carolina 27710.

Cytotechnology

Professor: William W. Johnston, M.D., Director, Cytotechnology Program Associate: Patricia R. Ashton, A.B., C.T. (ASCP), Educational Coordinator, Cytotechnology Program

Progress in the early detection of cancer by the microscopic examination of smears of cell samplings, especially from the female genital tract, has resulted in the specialty of cytotechnology. The cytotechnologist deals with the technical and diagnostic aspects of exfoliative cytology. Graduates of the program are awarded a certificate and are eligible to take the certifying examinations given by the Registry of Medical Technologists of the American Society of Clinical Pathologists.



Program of Study. The twelve month program beginning in mid-September consists of two parts: the first half is primarily devoted to theoretical and practical exercises in the techniques of exfoliative cytology and interpretation of the clinical material; the last half is composed of laboratory training in all aspects of exfoliative cytology.

Prerequisites for Admission. All applicants must have completed at least two years of college (sixty semester or ninety quarter hours) including at least twelve semester (eighteen quarter) hours in biology-anatomy, histology, zoology, botany, or physiology. Eight semester (twelve quarter) hours of biology plus four semester (six quarter) hours of another science, such as chemistry or physics will also fulfill this requirement. However, priority will be given to individuals with a Bachelor of Science or Bachelor of Arts degree or to ASCP certified medical technologists.

Application Procedures. Applications must be submitted by April 1 of the year for which admission is requested and must contain the following:

1. A completed application form;

- 2. Official transcripts from all colleges or professional schools attended;
- 3. One copy of all transcripts must be submitted by the applicant to the Board of Registry of the American Society of Clinical Pathologists for approval;

4. Two letters of recommendation from individuals acquainted with the applicant's educational or professional experiences; and

5. A personal interview prior to final acceptance.

All applicants will be notified by May 1 regarding admission to the program. Requests for further information and application forms should be directed to: William W. Johnston, M.D., Department of Pathology, Duke University Medical Center, Durham, North Carolina 27710.

Electrophysiological Technology

Director Electrophysiological Technology Program: W. P. Wilson, M.D.

Assistant Course Director: E. M. G. Rankin

Professor: W. P. Wilson, M.D.

Associate Professor: C. W. Erwin, M.D.

Teaching Staff: E. M. G. Rankin, Perry Hope, R. EEG T, Linda Ollis R EEG T and the EEG Lab. Staff

In 1961, Duke University Medical Center began its formal program in electrophysiological technology as an expansion of the in-service training program begun in 1955 at the Durham Veterans Administration Hospital. Every year the laboratories in the Medical Center perform over 4,000 examinations including investigative procedures during brain surgery. Ten students are accepted into the program in July. Upon successful completion of this twelve month program, graduates are awarded a certificate and become eligible to take the certifying examination given by the American Board of Registration of Electroencephalographic Technologists.

Program of Study. The first six months of this program are designed to instruct the student in basic neurosciences and electronics, as well as the use of electrophysiological recording equipment. The second six months consists of advanced instruction in instrumentation and electrophysiological recording techniques.

Prerequisites for Admission. All applicants must have a high school diploma. Applicants who had a science oriented high school curriculum, and applicants with some college experience, will receive priority.

Application Procedures. Applications must be submitted by April 1 of the year for which admission is requested and must contain the following:

1. A completed application form:

2. Results of the Scholastic Aptitude Test;

3. Three letters of recommendation, one from an individual acquainted with the applicant's character and the others from those acquainted with her/his education or professional experience;

4. A personal interview is desirable, but not required.

All applicants will be notified by May 15 regarding admission to the program. Requests for further information and application forms should be directed to: W. P. Wilson, Director, EEG Laboratory, Box 3838, Duke University Medical Center, Durham, North Carolina 27710.

Registration Fees and Expenses. A fee of \$600 is required of all students enrolled in the program.

Courses of Instruction. Students must complete the following courses:

| | Didactic courses Hours | Laboratory courses Hours |
|--------------------------------|---------------------------|-----------------------------|
| Technical EEG | 15 | 120 |
| Clinical EEG | 74 | 120 |
| Biomedical Instrumentation | 18 | 6 |
| Neurosciences | 40 | 0 |
| Radiologic Scan | 2 | 6 |
| Angiography | 1 | 3 |
| Pneumo EEG | 1 | 3 |
| Inhalation Therapy | 2 | 3 |
| Audiometry (Elective) | 4 | 20 |
| Electrocardiography (Elective) | 10 | 24 |

The practicum will consist of supervised instruction and practical experience in the EEG Lab at Duke, VA Hospital, and Watts Hospital. This will comprise about 1400 hours of supervised practice.

Health Administrators Management Improvement Program

Associate Professor: B. Jon Jaeger, Ph.D., Choirmon, Deportment of Heolth Administration Professors; Stuart M. Sessoms, M.D.; David Warren, J.D.

Associate Professor: Louis E. Swanson, A.B.

Assistant Professors: Donald S. Smith, M.H.A., Director of Graduote Studies; Thomas J. Delanev, M.S.

Adjunct Associate Professors: Elizabeth J. Coulter, Ph.D.; Florence Kavaler, M.D., M.P.H.; and Richard H. Peck, M.H.A.

Adjunct Assistant Professor: Arnold D. Kaluzny, Ph.D.

Research Associates: David J. Falcone, Ph.D.; and D. Michael Warner, Ph.D.

Lecturers: Jeff H. Steinert and Robert G. Winfree, M.H.A.

The Health Administrators Management Improvement Program (HAMIP) is conducted by the Department of Health Administration at Duke University specifically to strengthen the management skills of practicing health administrators who have not completed formal university-based education in health administration. It is designed to allow the working administrator to acquire skills and knowledge for more effective management of his or her hospital or other health organization with a minimum of time away from his job. A certificate is awarded for successful completion of the program.

Program of Study. All classroom sessions in this one-year program are held on the Duke University campus. The program consists of an initial one-week session, two-day sessions each month for eleven consecutive months, and a concluding one-week session, or a total of thirty-two full days on campus over a thirteen-month period. The HAMIP curriculum includes a structured home study program as well as lectures, seminars, and classroom work sessions while at the University. For each session there are assignments to be completed at home prior to class as well as follow-up work on the topics which have been discussed during the class session.

Prerequisites for Admission. All applicants must currently be employed in



health organizations. Administrators, assistant administrators, and candidates for such positions in health organizations will be eligible to attend. No one holding a master's degree in hospital administration will be eligible for admission. Formal academic preparation is not a prerequisite. Priority is given to applicants from North and South Carolina; however, applicants from other states may be accepted. Students will be selected on the basis of two criteria: (1) how much they can benefit from the program, and (2) how much the student's participation in the program will help his or her organization.

Admission Procedures. Applications must be submitted by June 15 of the year for which admission is requested and applicants will be notified by July 1 regarding their admission. Forms may be obtained from Thomas J. Delaney, Coordinator, Box 3018, Duke University, Durham, North Carolina 27710.

Registration Fees and Expenses. Tuition for the program is \$1,600 which includes all required instructional materials. Upon acceptance, \$800 is required, the remainder to be paid when the program formally begins.

Financial Aid. Scholarship assistance representing approximately one-half of the tuition may be available to students.

Hospital and Clinical Pharmacy Residency

Director: Milton W. Skolaut, B.S. Assistant Director: E. Clyde Buchanan, M.S. Associate: William H. Briner, B.S., Director of Rodiophormocy Loboratory

Residency Program. The Hospital and Clinical Pharmacy Residency is a twelve month postbaccalaureate program conducted by the Department of Pharmacy, Duke Hospital. Duke University Medical Center, Durham, North Carolina. The residency is designed to give the graduate pharmacist experience in the administrative aspects of hospital pharmacy management and to offer advanced training in clinical pharmacy practice. Management of modern drug dispensing systems, such as unit dose drug distribution, intravenous admixture preparation and hyperalimentation formulation, is emphasized. Competency in clinical practice and the strengthening of leadership capabilities are stressed in the residency.

Admission Standards. A resident must be a graduate of a school of pharmacy and hold a B.S., M.S., or Pharm.D. degree. The resident must have demonstrated good academic and leadership capabilities. It is preferable that the applicant have previous hospital pharmacy experience.

Application Procedures. Applications must be submitted by February 1 of the year for which admission is requested and include the following:

1. Personal interview, to be arranged by appointment;

2. Official transcript from school of pharmacy and other professional programs attended;

3. A completed Duke Medical Center employment application form; and

4. Letters of recommendation from at least three persons having known the applicant in a professional way (i.e., a professor, dean, pharmacist, or physician).

Applicants will be notified by March 15 regarding admission to the program.

Stipend. A stipend of \$10,000 is granted for the twelve month residency. This stipend is tax-free if the resident is enrolled in a graduate program requiring a residency for a degree.

Nuclear Medicine Technology

Professor: Richard G. Lester, M.D., Choirmon, Deportment of Rodiology Professor: Jack K. Goodrich, M.D., Director, Division of Nuclear Medicine

Educational Director: Elizabeth C. Blackburn, M.Ed.

Associate Professors: Jack D. Davidson, M.D.; C. Craig Harris, M.S.; Robert H. Wilkinson, Jr., M.D.; Joseph B. Workman, M.D.

Assistant Professor: William H. Briner, B.S.

Associates: Fred P. Bruno, M.S.; Conrad Knight, B.S.

Instructional Supervisor: E. D. Flowers, R.T., N.M.T.

Additional instruction is provided by the nuclear medicine residents and technical staff.

In the fall of 1967 the Division of Nuclear Medicine in the Department of Radiology of the Duke Medical Center began a full year program in nuclear medicine technology. This program is approved by the American Medical Association, and upon completion of studies the student is awarded a certificate and becomes eligible to take the ARRT and RMT (ASCP) registry examinations in nuclear medicine technology.

Program of Study. The program consists of twelve months of instruction and clinical training. The first three months are spent in courses involving both didactic and laboratory instruction. The following nine months are spent in an internship. The student rotates through clinical areas in the Duke University and the Durham Veterans Administration hospitals.

Prerequisites for Admission. Applicants must be registered or registry-eligible radiologic technologists, medical technologists, or have an Associate of Arts/Science or Bachelor of Arts/Science degree from an accredited college. Due to the pace and scope of the subject matter presented, it is strongly recommended that students review the following areas prior to entry into the program: mathematics, use of the slide rule, general biology, chemistry, and physics.

Application Procedures. Applications must be submitted by May 1 of the year for which admission is requested and must contain the following:

1. A completed application form;

2. Official transcripts from all high schools, colleges, or professional schools attended;

3. Results from any standardized aptitude tests, such as PSAT, SAT,

and ACT, taken by the applicant;

4. Three letters of recommendation from business or professional men and women, not related to the applicant, but who are acquainted with her/his educational or professional experiences; and

5. A personal interview is desirable, but not required.

All applicants will be notified by May 15 regarding admission to the program. Requests for further information and application forms should be directed to: Program Director for Nuclear Medicine Technology, Allied Health Education Building, Veterans Administration Hospital, Durham, North Carolina 27705.

Registration Fees and Expenses. A registration fee (not the full Duke University tuition) of \$100 is required. Students must furnish their own uniforms; however, laboratory coats are provided by the program. In addition, books and supplies will cost approximately \$50.

Financial Aid. After successfully completing the first three months of course work, all students will be paid a monthly stipend of \$150 from Duke University Hospital for the remaining nine months of the program.

Courses of Instruction. Students must complete the following courses.

| Title | Hours | |
|--------------------------------|-------|--|
| Anatomy/Physiology/Pathology | 70 | |
| Clinical Applications | 80 | |
| Independent Study | 15 | |
| Instrumentation | 80 | |
| Mathematics Review | 20 | |
| Nuclear and Radiation Physics | 80 | |
| Orientation | 15 | |
| Radiation Biology | 15 | |
| Radiation Protection | 15 | |
| Radiochemistry and Radiopharma | 60 ey | |
| Student Seminars | 50 | |

In addition, assigned experience in clinical procedures will total 1400 hours.









Nurse Anesthesiology

Professor: Merel H. Harmel, M.D., Chairman, Department of Anesthesiology

Professor: Sara J. Dent, M.D.

Director: Mary B. Campbell, CRNA

Educational Director: Lawrence R. Stump, BSN, CRNA

Instructors: Mary M. Gardner, CRNA; Leola Glenn, CRNA

 $Additional\ instruction\ and\ supervision\ is\ provided\ by\ the\ attending\ an esthesiologists\ and\ the\ staff\ nurse\ an esthetists.$

In 1931 Duke University Medical Center's Department of Anesthesiology established a program for registered nurses to further their study in anesthesiology. Students learn about the physiopharmacological effects of anesthesia and related drugs, the proper techniques for their administration, and the management of an entire treatment plan for patients requiring anesthesia. Upon successful completion of the required qualifying examination, graduates are eligible for membership in the American Association of Nurse Anesthetists.

Program of Study. The program beginning in January requires twenty-four months of training with the major portions of basic theoretical instruction given during the first two semesters. After twelve weeks, students begin clinical practice while continuing their didactic studies. Most of the second year is concerned with clinical anesthesia. It is during this time that the students begin to work with cases which require more skill. Seminars are held twice a week and review examinations are given monthly.

Prerequisites for Admission. All applicants must be registered nurses. Priority is given to those with a year or more experience in the operating and/or recovery room. Applicants are selected from baccalaureate, diploma, and associate degree programs.

Application Procedures. Applications must be submitted by April of the year prior to which admission is requested and must contain the following:

- 1. A completed application form, including a photograph;
- 2. Official transcripts from all nursing schools attended;
- 3. Four references; and
- 4. A personal interview.

Applicants will be notified by August regarding admission to the program. Requests for further information and application forms should be directed to: Mary B. Campbell, CRNA, P.O. Box 3094, Duke University Medical Center, Durham, North Carolina 27710.

Registration Fees and Expenses. A registration fee of \$150 is required of which \$50 is a deposit, the remainder to be paid at the time of enrollment. Books will cost approximately \$200 and miscellaneous expenses average \$50.

Financial Aid. A stipend of \$350 per month is paid to all students. In addition, scholarships are available to nurses registered in North Carolina. For further information concerning these scholarships contact the North Carolina Medical Care Commission, P.O. Box 9594, Raleigh, North Carolina 27603.

Courses of Instruction. Students must complete courses in the following:

Typical Course Sequence

Semester I (Spring Semester)

- NA 100 Anatomy & Physiology for the Nurse Anesthetist
- BIO 103 Cardio-Respiratory Physiology
- NA 140 Introduction to Pharmacology for the Nurse Anesthetist
- NA 120 Fundamentals of Anesthetic Practice
- NA 160 Introduction to Clinical Anesthesia
- NA 180 Anesthesia Seminar
- NA 190 Special Problems in Anesthesiology

Summer I

- NA 150 Pharmacology of Anesthetic Agents
- NA 170 Introduction to Clinical Anesthesia
- NA 130 Fundamentals of Anesthetic Practice II

Summer II

- NA 200 Clinical Anesthesia Rotation (Orthopedics)
- NA 190 Special Problems in Anesthesiology

Semester II (Fall Semester)

- NA 210 Clinical Anesthesia Rotation (Neurosurgery)
- NA 220 Clinical Anesthesia Rotation (Thoracic-Cardiovascular)
- NA 180 Anesthesia Seminar
- NA 190 Special Problems in Anesthesiology

Semester III (Spring Semester)

- NA 230 Clinical Anesthesia Rotation (General Surgery)
- NA 240 Clinical Anesthesia Rotation (Obstetrics & Gynecology)
- NA 180 Anesthesia Seminar
- NA 190 Special Problems in Anesthesiology

Summer III

- NA 250 Clinical Anesthesia Rotation (Urology)
- NA 190 Special Problems in Anesthesiology

Summer IV

- NA 260 Clinical Anesthesia Rotation (Plastic-Maxillofacial)
- NA 190 Special Problems in Anesthesiology

Semester IV (Fall Semester)

- NA 270 Clinical Anesthesia Rotation (Ear-Nose-Throat)
- NA 280 Clinical Anesthesia Rotation (Ophthalmology)
- NA 190 Special Problems in Anesthesiology
- NA 180 Anesthesia Seminar

Operating Room Technology

The Operating Room Technology Program is a year long course which begins in September. The program includes instruction in anatomy and physiology, aseptic technique, history of surgery, instrument sterilization, and special techniques. All course work is coordinated by an instructor, and during the clinical phase of training students work directly with the surgical team, scrubbing and circulating. Upon completion of the course, a certificate is awarded.

Prerequisites for Admission. Applicants must be eighteen years old, high school graduates or equivalent, and in good physical and mental health. Requests for further information and application forms should be directed to: Mrs. Sandra B. McKenzie, R.N., Instructor, O.R. Technology Program, Box 3237, Duke University Medical Center, Durham, North Carolina 27710.

Postgraduate LPN Program in Operating Room Technique

This is a one year program which begins in March or April. The program includes instruction in anatomy and physiology, aseptic technique, history of surgery, instrument sterilization, and special techniques. All course work is coordinated by an instructor, and during the clinical phase of training students will be working directly with the surgical team either scrubbing or circulating. Upon completion of the course, a certificate is awarded.

Prerequisites for Admission. Applicants must be Licensed Practical Nurses between the ages of eighteen and forty-five and in good physical and mental health. Requests for further information and application forms should be directed to: Mrs. Margaret M. Williams, R.N., Instructor, LPN Postgraduate Program, Box 3237, Operating Room, Duke University Medical Center, Durham, North Carolina 27710.

Pastoral Care and Counseling

Assistant Professor: P. Wesley Aitken, B.D., Th.M., Director and Supervisor Training Supervisor: Peter G. Keese. S.T.B. Professor: Richard A. Goodling, B.D., Ph.D. Assistant Professors: John C. Detwiler, B.D., Th.M.; Paul A. Mickey, B.D., Ph.D.

A graduate program in pastoral care and counseling is available to clergy of all religious groups. There are four program options: a single unit of Clinical Pastoral Education, an internship, a residency, and a fellowship. All are designed to train ordained individuals who desire to specialize in pastoral care and counseling or to enhance their skills as parish clergy. Those who enroll in the program will be required to serve as chaplains or as pastoral counselors in the Medical Center or in the community of Durham. All program options are approved by the Association for Clinical Pastoral Education, Inc.

Program of Study. For the internship, usually beginning in June and lasting twelve months, four units of Clinical Pastoral Education (CPE) with the ACPE are granted. Classroom studies are interspersed through the clinical phase of training by conferences and courses offered in the Medical Center and the Divinity School.

Prerequisites for Admission. Applicants to the internship must possess a college degree or its equivalent and have completed at least two years of



theological education or its equivalent. Usually completion and supervisor's evaluation of one certified unit of CPE (basic unit) is required.

Application Procedures. Applications must be submitted by March 15 of the year for which admission is requested and must contain the following:

A completed application form and its supplementary materials;
 A personal interview with the supervisory and teaching staff.

All applicants will be notified by April 1 regarding admission to the program. Requests for application and further information about any of the pro-











grams should be directed to the Coordinator of Clergy Training, Box 3112, Duke University Medical Center, Durham, North Carolina 27710.

Registration Fees and Expenses. Individual units of training will cost \$150 for the first quarter and \$75 for each quarter thereafter. The fee is payable to the Chaplains Service at the beginning of each unit of training. Students who are taking CPE as part of the master's degree program of the Divinity School will be charged tuition by the Divinity School instead of the \$75 fee for the fall, winter, and spring quarters. Upon acceptance, a deposit of \$25 is required, but will be deducted from the fees at the beginning of the program.

Financial Aid. A limited number of training stipends is available, \$2,400 for the internship and \$3,000 for the residency. No stipends are available for the single unit of training.

Physician's Associate

A limited number of students who are not eligible for admission to the Bachelor of Health Science degree, but who possess outstanding credentials in a health care field, are accepted into the certificate program. The two year program, including tuition, is the same as that described in the second chapter. Students are issued a Duke University undergraduate identification card and are granted the same privileges as the physician's associate students in the Bachelor of Health Science degree program. Prerequisites for admission differ in that applicants not planning to receive the degree need not fulfill the lower division requirements for transfer students to Duke University. In all other respects the prerequisites are the same, including a college level course in both chemistry and biology.

Radiologic Technology

Professor: Richard G. Lester, M.D., Chairman, Department of Radiology Assistant Professor and Medical Director: Thomas T. Thompson, M.D. Technical Director: Cynthia C. Kirby, R.T., ARRT

The Radiologic Technology Programs at the Duke University Medical Center and the Veterans Administration Hospital offer beginning and postgraduate education.

RADIOLOGIC TECHNOLOGY CERTIFICATE PROGRAM

A maximum of twelve students is admitted each July for the two-year radiologic technology certificate program. Each student receives both academic and clinical training in all aspects of the field. After successful completion of the program, the student is eligible to take the national board examination sponsored by the American Registry of Radiologic Technologists.

Program of Study. The course of study follows the approved syllabus of the American College of Radiology and the American Society of Radiologic Technologists. The number of hours devoted to most subjects generally exceeds the basic minimum requirements.

Class lectures are scheduled on a full-time basis from July-September of the entering year. During the succeeding months of the program, classes are held on Monday, Wednesday, and Friday afternoons with the exception of the summer months. The remainder of the program involves a series of clinical rotations, in all aspects of technological activity, under the supervision of clinical instructors, full-time registered radiologic technologists, senior staff radiologists, and

resident radiologists. Periodic examinations are given to evaluate progress. Full-time attendance is mandatory in both classroom and practical work. Saturday and Sunday as well as week-night emergency call will be required on a rotational basis.

Prerequisites for Admission. All applicants must have a diploma from an accredited high school or its equivalent.

Application Procedures. The following are necessary to complete application procedures:

- 1. A completed application form, including a recent photograph and a nonrefundable fee of \$20;
- 2. Official transcripts from all high schools, colleges, or professional schools attended;
- 3. Scholastic Aptitude Test scores from the College Entrance Examination Board;
- 4. Three letters of recommendation from persons not related to the applicant; and

5. A personal interview is requested.

Requests for further information and application forms should be directed to Cynthia Kirby, Technical Director, Radiologic Technology Programs, Box 3108, Duke University Medical Center, Durham, North Carolina 27710.

Registration Fees and Expenses. There is a nonrefundable registration fee of \$10. Tuition for the course is \$200 per year. In addition, books and supplies will cost approximately \$125.

Financial Aid. There are no stipends. However, part-time employment in ancillary areas will be available in the Duke University Medical Center's Department of Radiology. A student should not expect to be employed during the first two months of the program and following that period should not be employed for more than twenty hours per week.

The program is approved for the enrollment of persons eligible for benefits under Title 38 USC (G.I. Bill).





ADVANCED RADIOLOGIC TECHNOLOGY PROGRAM

A maximum of ten students is admitted each September.

Program of Study. The advanced radiologic technology program is a one-year program designed to provide an opportunity for registered radiologic technologists to acquire an in-depth knowledge of their profession. Only highly qualified and experienced radiologic technologists are admitted to the program. The curriculum encompasses such things as special radiological procedures; application and knowledge of X-ray equipment; testing and evaluation of medical X-ray film, film processing and quality control; applied nursing procedures; ultra-sonography; xeroradiography and basic managerial concepts. The program is designed to provide an educational and economical career ladder for those who are interested in special procedures in radiologic technology and/or departmental supervisory positions.

Classroom: 512 hours.

Clinical Clerkship: 840 hours.

Prerequisites for Admission. All applicants must be registered radiologic technologists.

Application Procedures. The following are necessary to complete application:

- 1. A completed application form, including a recent photograph and a nonrefundable fee of \$20;
- 2. Official transcript from the Radiologic Technology program attended;
 - 3. Copy of certification as a registered radiologic technologist:
- 4. Two letters of recommendation, one from applicant's previous supervisory radiologic technologist and one from a radiologist; and
 - 5. A personal interview is requested





Requests for further information and application forms should be directed to Cynthia Kirby, Technical Director, Radiologic Technology Programs, Box 3108, Duke University Medical Center, Durham, North Carolina 27710.

Registration Fees and Expenses. There is a nonrefundable registration fee of \$10. Tuition for the course is \$350. In addition, books and supplies will cost approximately \$100.

Financial Aid. There is a modest monthly stipend. In addition, part-time employment in the Department of Radiology is available for those students needing extra income. However, students should not plan to seek outside employment during the first three months of the program due to a heavy classroom commitment.

The program is approved for the enrollment of persons eligible for benefits under Title 38 USC (G.I. Bill).

Respiratory Therapy

Professor: Merel H. Harmel, M.D., Chairman, Department of Anesthesiology Medical Director; I. Howard Brown, M.D.

Director: H. R. Anderson, AAS, ARRT, Division of Respiratory Therapy, Duke University Medical Center

Educational Coordinator: P. A. Bronson, B.S., ARRT, Duke University Medical Center Program Coordinator: W. H. Dubbs, B.S., Respiratory Therapy, Durham Technical Institute Clinical Coordinator: Wayne R. MacKintosh, ARRT, Duke University Medical Center Clinical Instructors: Betsy R. Durham, RN, ARRT; Fred Costrovinci, B.S.; Paul Beam, B.S.

Respiratory therapy is one of the newest and fastest growing allied health specialities in the United States today, due to the increasing incidence of respiratory diseases in our society and the increasing complexity of the various modalities used in the treatment and diagnosis of these diseases. The respiratory therapist must be an expert in the therapeutic uses of aids to the breathing process such as medical gases, oxygen administering apparatus, humidity and aerosol devices, positive pressure ventilation, mechanical airways, and cardiopulmonary resuscitation. In September, 1970, the Duke



University Medical Center and Durham Technical Institute initiated an associate degree program in respiratory therapy under the medical direction of the Department of Anesthesiology. It is accredited by the Council on Medical Education of the American Medical Association and approved by the North Carolina State Board of Education. At the completion of this program the student will be awarded the Associate in Applied Science degree from Durham Technical Institute and a certificate from Duke University Medical Center. Graduates will be qualified to participate in the national registry examination.



Program of Study. The clinical and didactic education is completed at Duke University Medical Center, Watts Hospital, and Durham Technical Institute concurrently throughout the twenty-four month program.

Prerequisites for Admission. All applicants must have a high school diploma or its equivalent, including two units of mathematics and two of physical science.

Application Procedures. Applications must be submitted by April 15 of the year for which admission is requested and must contain the following:

- 1. A completed application form:
- 2. Official transcripts from all high schools and colleges attended;
- 3. Placement examinations for Durham Technical Institute given at the time of enrollment;
 - 4. Three letters of recommendation; and
 - 5. A personal interview is requested.

All applicants will be notified by May 15 regarding admission to the program. Requests for further information and application forms should be direct-

ed to: Program Coordinator, Durham Technical Institute, 1637 Lawson Street, Durham, North Carolina 27703.

Registration Fees and Expenses. Durham Technical Institute tuition is \$32 per quarter for in-state students. For out-of-state students, the tuition is \$137.50 per quarter. In addition, books will average \$50 per quarter.

Financial Aid. A limited amount of financial assistance is available to students. More information can be found in the catalogue of Durham Technical Institute.

Courses of Instruction. Students must complete the following:

| Current Respiratory Therapy Curriculum | | | | | |
|--|--------------------------|------|------|-------------------|--------------|
| Summer Quarter | | | Hour | s Per Week | Credit Hours |
| Course | | Lec. | Lob. | Clinical Rotation | |
| *BCP 100 | Unified Science | 10 | 6 | | 13 |
| *MAT 101 | Mathematics | 5 | 0 | | 5 |
| | | 15 | 6 | | 18 |
| Fall Quarter | | | | | |
| BIO 101 | General Biology | 3 | 2 | | 4 |
| CHM 101/G | Chemistry | 3 | 2 | | 4 |
| NUR 101 | Nursing Arts | 3 | 0 | | 3 |
| ENG 100 | Communication Skills I | 2 | 0 | | 2 |
| RTH 101 | Respiratory Therapy | | | | |
| | Theory & Procedures | 3 | 2 | | 4 |
| RTH 101/P | Respiratory Therapy | | | | |
| | Clinical Practice | | | 3 | 1 |
| | | 14 | 6 | 3 | 18 |
| Winter Quarter | | | | | |
| CHM 102/G | Chemistry | 3 | 2 | | 4 |
| MAT 102 | Mathematics | 5 | 0 | | 5 |
| BIO 102 | Anatomy & Physiology | 4 | 2 | | 5 |
| ENG 101 | Communication Skills II | 5 | 0 | | 5 |
| RTH 102 | Respiratory Therapy | | | | |
| | Theory & Procedures | 3 | 2 | | 4 |
| RTH 102/P | Respiratory Therapy | | | | |
| | Clinical Practice | | | 6 | 2 |
| | | 20 | 6 | 6 | 25 |
| Spring Quarter | | | | | |
| MED 150 | Pharmacology | 3 | 0 | | 3 |
| PHY 101/G | Physics | 3 | 2 | | 4 |
| BIO 103 | Cardiorespiratory A&P | 3 | 0 | | 3 |
| ENG 102 | Communication Skills III | 3 | 0 | | 3 |
| RTH 103 | Respiratory Therapy | | | | |
| | Theory & Procedures | 3 | 2 | | 4 |
| RTH 103/P | Respiratory Therapy | | | | |
| | Clinical Practice | _ | _ | 12 | 4 |

^{*}These courses are not to be considered a part of the formal curriculum, but a means of improving weaker students prior to the beginning of each freshman year.

4

15

12

21



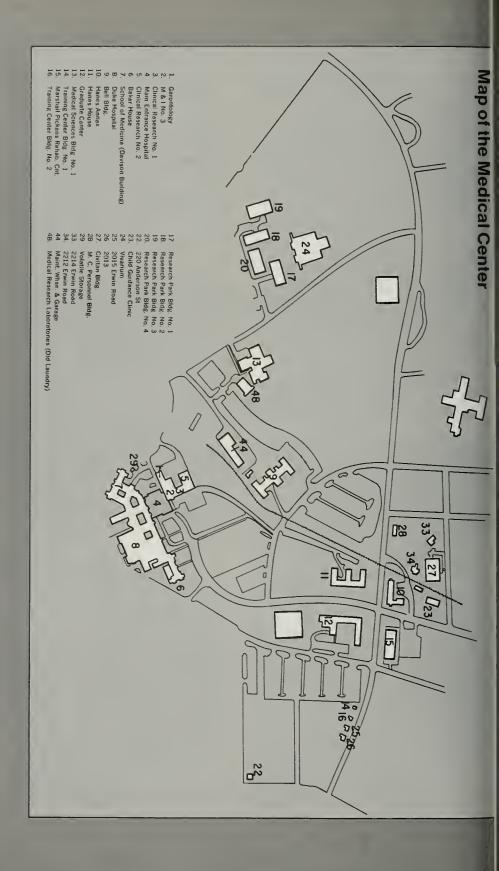








| Summer Quarter | | | Hours Per Week | | Credit Hours |
|----------------|--------------------------|---------------|----------------|-------------------|--------------|
| Course | | Lec. | Lab. | Clinical Rotation | |
| BIO 201 | Microbiology | 4 | 2 | | 5 |
| PHY 102/G | Physics | 3 | 2 | | 4 |
| RTH 201 | Respiratory Therapy | | | | |
| | Theory & Procedures | 3 | 2 | | 4 |
| RTH 201/P | Respiratory Therapy | | | | |
| | Clinical Practice | | | 15 | 5 |
| | | 10 | 6 | 15 | 18 |
| | | | | | |
| Fall Quarter | | | | | |
| MED 250 | Pathology | 4 | 0 | | 4 |
| ENG 203 | Communication Skills IV | 2 | 0 | | 2 |
| SOC 102 | General Sociology | 3 | 0 | | 3 |
| PSY 102 | General Psychology | 3 | 0 | | 3 |
| RTH 202 | Respiratory Therapy | | | | |
| | Theory & Procedure | 3 | 2 | | 4 |
| RTH 202/P | Respiratory Therapy | | | | |
| | Clinical Practice | | _ | 15 | 5 |
| | | 15 | 2 | 15 | 21 |
| Winter Quarter | | | | | |
| RTH 203 | Respiratory Therapy | | | | |
| | Theory & Procedures | 3 | 2 | | 4 |
| RTH 203/P | Respiratory Therapy | | | | |
| | Clinical Practice | | | 15 | 5 |
| RTH 210 | Respiratory Therapy | | | | |
| | Seminar | 2 | 0 | | 2 |
| RTH 251 | Assessment and Treatment | t | | | |
| | of Cardiorespiratory | | | | |
| | Abnormalities | 3 | 0 | | 3 |
| | | 8 | 2 | 15 | 14 |
| | | | | | |
| Spring Quarter | , | | | | |
| RTH 204 | Respiratory Therapy | | | | |
| | Theory & Procedures | 3 | 2 | | 4 |
| RTH 204/P | Respiratory Therapy | | | | |
| DELLOS | Clinical Practice | | | 15 | 5 |
| RTH 211 | Independent Research in | | | | |
| DTI Lago | Respiratory Therapy | 2 | 0 | | 2 |
| RTH 220 | Departmental Management | | | | |
| | & Personnel Supervision | 3 | $\frac{0}{2}$ | - | 3 |
| | | 8 | 2 | 15 | 14 |
| Summer Quarter | r | | | | |
| RTH 205 | Respiratory Therapy | | | | |
| | Internship | | | 33 | 11 |
| RTH 212 | Respiratory Therapy | | | | |
| | Seminar | 3 | | | 3 |
| | | $\frac{3}{3}$ | | 33 | 14 |
| | | | | | |









1975-1976 BULLETIN OF DUKE UNIVERSITY

Directory of Officers, Faculty, and Staff





Bulletin of Duke University

Directory of Officers, Faculty, and Staff

1975-76

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Officers, Faculty, and Staff 1974-75



The Corporation

THE UNIVERSITY TRUSTEES

(The dote in porentheses indicates the year of election.)

Trustees whose terms expire June 30, 1975

Werner Curt Brown (1973) Thomas A. Finch (1963) John Brooks Fuqua (1974) Amos Ragan Kearns (1945) William H. Muller, Jr. (1974) Mary D.B.T. Semans (1961) James Frederick Von Canon (1959) Wilson O. Weldon (1968) 'Henry E. Rauch (1964), Vice Choirmon

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Lake Forest, Ill. Granite Falls, N. C. Charlotte, N. C. Annapolis, Md.

Trustees whose terms expire June 30, 1977

Merrimon Cuninggim (1963)
W. Kenneth Goodson (1972)
Wallace H. Kirby (1973)
George Crews McGhee (1962)
John Alexander McMahon (1970), Choirmon

2Marshall I. Pickens (1963)
Walter McGowan Upchurch, Jr. (1964), Vice Choirmon
Charles Byrd Wade, Jr. (1964)
Edwin C. Whitehead (1974)

St. Louis, Mo.
Richmond, Va.
Raleigh, N. C.
Middleburg, Va.
Chicago, Ill.
Charlotte, N. C.
New York, N. Y.
Winston-Salem, N. C.
Greenwich, Conn.

¹Resigned June 14, 1974. ²Retired July 1, 1974.

From the Alumni

Nancy Hanks (1966) Jeffrey Kurzweil (1972) Isobel Craven Lewis (1973) Clifford W. Perry (1966) New York, N. Y. Nashville, Tenn. Lexington, N. C. Winston-Salem, N. C.

Trustees whose terms expire June 30, 1979

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¹⁴Leave of absence 6-9-74 through 9-9-74
¹⁵Sabbatical leave 1974-75.

Janis Antonovics (1970), Ph.D. (Univ. Coll. of North Wales) Associote Professor of Botony 1026 West Trinity Avenue Stanley H. Appel (1964-65; 1967), M.D. (Columbia) Professor of Medicine (Neurology) ond Associote Professor of Biochemistry 2513 Wrightwood Avenue James Applewhite (1971), Ph.D. (Duke) Assistant Professor of English 606 Candlewood Place Mahadev L. Apte (1965), Ph.D. (Wisconsin) Associate Professor of Anthropology 1518 Southwood Drive ¹⁶Richard E. Aquila (1968), Ph.D. (Northwestern) Apartment 1-C Assistant Professor of Philosophy 1600 Anderson Street Jay Morris Arena (1933), M.D. (Duke) Professor of Pediotrics 1403 Woodburn Road Kiro Pete Arges (1953), M.S. (Tennessee) Assistant Professor of Civil Engineering 802 West Maynard Avenue John Leslie Artley (1955), D.Eng. (Johns Hopkins) Professor of Electrical Engineering 2714 Wrightwood Avenue Patricia R. Ashton (1972), A.B. (Goucher) Associote in Pathology 15 Ashley Road Ruth S. Askins (1972), M.S.N. (North Carolina) 1906 West B. Street Butner, N. C. Instructor in Nursing ¹⁷Louis E. Auld (1970), Ph.D. (Bryn Mawr) Assistant Professor of Romance Languages 2311 Prince Street Robert J. Bache (1971), M.D. (Harvard) Assistant Professor of Medicine and Associate 3608 Suffolk Street in Physiology Kurt W. Back (1959), Ph.D. (Massachusetts Inst. of Tech.) Professor of Sociology and Professor of Medical Sociology in the Department of Psychiatry 2735 McDowell Street Rodger W. Baier (1972), Ph.D. (Washington) 1104 Live Oak Street Assistant Professor of Chemistry Beaufort, N. C. Joseph Randle Bailey (1946), Ph.D. (Michigan) Professor of Zoology 2517 Sevier Street Lloyd R. Bailey (1971), Ph.D. (Hebrew Union) Associote Professor of Old Testoment 4122 Deepwood Circle Collin F. Baker, Jr. (1973), M.D. (Vanderbilt) Assistant Professor of Community Health Sciences 1419 Woodland Drive Frank D. Baker (1960), Ph.D. (Nottingham) Professor of English Church History 1505 Pinecrest Road Kenneth R. Baker (1973), Ph.D. (Cornell) 4113 Huckleberry Drive Associote Professor of Monogement Sciences in Groduote School of Business Administration Raleigh, N. C. Jean M. Baldigo (1974), M.A. (New School for Social Research) Assistant Professor of Sociology 1010 Urban Avenue ¹⁸Marie Baldwin (1949), M.D. (South Carolina) 1 Zillicoa Street Assistant Professor of Psychiotry Asheville, N. C. Steven W. Baldwin (1970), Ph.D. (California Inst. of Tech.) Assistant Professor of Chemistry 3917 Inwood Drive Helmy H. Baligh (1967), Ph.D. (California at Berkeley) 1909 Rolling Road Professor of Business Administration Chapel Hill, N. C. M. Margaret Ball (1963), Ph.D. (Stanford) Professor of Political Science 2305 Elmwood Avenue Robert H. Ballantyne (1962), Ed.D. (Washington State) Associote Professor of Education 2510 Wrightwood Avenue Paul V. Bamford (1974), Ph.D. (North Carolina at Chapel Hill) 3914-A Tara Drive Raleigh, N. C. Visiting Assistant Professor of Philosophy ¹⁹Bruce R. Banks (1970), M.S. (George Washington) Visiting Associote Professor of Novol Science 3421 Cromwell Road James David Barber (1972), Ph.D. (Yale)

Professor of Political Science

1011 Homer Street

¹⁶Through 8-31-74.

¹⁷Through 8-31-74.

¹⁸Retired 8-31-74.

¹⁹Through 5-31-74.

| Richard T. Barber (1970), Ph.D. (Stanford) Associate Professor of Zoology and Botany Sarah Kathryn Barclay (1965), M.S.S. (Tulane) Assistant Professor of Psychiatric Sacial Work | 307 Ann Street Beaufort, N. C. Apartment 18-D 2820 Chapel Hill Road |
|--|--|
| Norman Howard Barlow (1955), Ph.D. (Duke) Assistant Professor of Romonce Languages | 3852 Somerset Drive |
| Rabert L. Barnes (1965), Ph.D. (Duke) Professor af Farest Biochemistry | 5303 Revere Road |
| Rager Coke Barr (1969), Ph.D. (Duke) Assaciate Professor of Biomedical Engineering and | |
| Associote Prafessor of Pediatrics | 121 Whitfield Road |
| William F. Barry, Jr. (1955), M.D. (Pennsylvania) Professor of Rodiology and Assistant Professor of Medicine | 2713 McDowell Road |
| Frank Hauston Bassett, III (1963), M.D. (Louisville) Professor of Orthapaedics and Assistant Professor of Anatomy | 3940 Dover Road |
| Joseph Battle (1970), Ph.D. (Michigan) Associote Professor of Business Administrution | 1636 Marion Avenue |
| George J. Baylin (1939), M.D (Duke) Professor of Rodiology und Professor of Otoloryngology in the Deportment of Surgery | 2535 Wrightwood Avenue |
| William Walda Beach (1946), B.D., Ph.D. (Yale) | |
| Professor of Christion Ethics Richard W. Beals (1974), Ph.D. (Yale) | 130 Pinecrest Road |
| Visiting Prafessor of Mothemotics | 615 Duluth Street |
| ²⁰ Richard C. Bechtel, Jr. (1971), M.D. (Duke) Associote in Obstetrics and Gynecology | 801 Hudson Avenue |
| William L. Beery (1973), M.P.H. (North Carolina at Chapel Hill) Associote in Community Heolth Sciences | 1700 Shawnee Street |
| Victor S. Behar (1968), M.D. (Duke) Associote Professor of Medicine | 1821 Woodburn Road |
| Robert D. Behn (1973), Ph.D. (Harvard) | 1021 WOOdbuill Road |
| Associote Professar of Policy Sciences and Lecturer in Public Systems Engineering, Deportment of Civil | Apartment 5-1 |
| Engineering | 200 Seven Oaks Road |
| ²⁴ Joseph C. Bell (1972), LL.B. (Yale) Assistant Professor of Low | 2410 Wrightwood Avenue |
| Robert M. Bell (1972), Ph.D. (California at Berkeley) | |
| Assistant Professor of Biochemistry ²² Theodore M. Benditt (1970), Ph.D. (Pittsburgh) | 4300 Rhew Drive |
| Assistant Professor of Philosophy | 1006 Trinity Avenue |
| Peter Brian Bennett (1972), Ph.D. (Univ. of Southampton, England) Professor of Anesthesiology and Biomedical Engineering | 3010 Harriman Drive |
| Dudley Woodrow Benson, Jr. (1974), M.D. (Duke) | Route 2, Box 458D |
| Associate in Pediotrics ²³ Lawrence Paul Benson (1973), M.B.A. (Chicago) | Chapel Hill, N. C. |
| Instructor in Heolth Administration | 3084-D Colony Road |
| Jan Agar Bergeron (1969), V.M.D. (Pennsylvania) Assistant Professor of Anatomy and Assistant Professor | |
| of Zoology | 2816 Cornwallis Road |
| Byron J. Bergert (1973), Ph.D. (Florida) | P. O. Box 3805 |
| Assaciote in Otoloryngology in the Department of Surgery John K. Bergland (1973), M.Div. (United Theological Seminary) | Duke Hospital |
| Associate Professor of Homiletics, Divinity School | 3920 Berry Bush Place |
| Charles W. Bergquist (1972), Ph.D. (Stanford) Assistant Professor of History | 39 Davie Circle Chapel Hill, N. C. |
| Frederick Bernheim (1930), Ph.D. (Cambridge) | |
| James B. Duke Professor of Phormucalogy Helga Wilde Bessent (1964), M.A. (Vanderbilt) | 115 Woodridge Drive |
| Assistant Professor of Germon | 2117 Englewood Avenue |

 ²⁰Through 5-31-74.
 ²³Leave of absence 1974-75.
 ²²Leave of absence 1974-75.
 ²³Through 6-30-74.

William Bevan (1974), Ph.D. (Duke) William Preston Few Professor of Psychology 1540 Hermitage Court Helen Smith Bevington (1943), M.A. (Columbia) Professor of English 4428 Guess Road Lawrence C. Biedenharn, Jr. (1961). Ph.D. (Massachusetts Inst. of Tech.) Professor of Physics 2716 Sevier Street Alan Biermann (1974), Ph.D. (California at Berkeley) 211 Severin Street Assistant Professor of Computer Science Chapel Hill, N. C. Darell D. Bigner (1972), Ph.D. (Duke) Associote Professor of Pothology, Assistant Professor of Experimental Surgery, and Lecturer in the Deportment of Microbiology ond Immunology 4308 Samoa Court William Dwight Billings (1952), Ph.D. (Duke) Jomes B. Duke Professor of Botony 1628 Marion Avenue Edward G. Bilpuch (1962), Ph.D. (North Carolina) 106 Cherokee Circle Chapel Hill, N. C. Professor of Physics Warren P. Bird (1968), M.S.L.S. (Columbia) Associote Professor of Medical Literature 35 Stoneridge Circle John A. Bittikofer (1970), Ph.D. (Purdue) Associote in Clinicol Biochemistry 424 Valley Drive Apartment G-4 David E. Black (1968), Ph.D. (Massachusetts Inst. of Tech.) 1829 Front Street Assistant Professor of Economics ²⁴Martin Lee Black, Jr. (1930), M.B.A. (Northwestern), C.P.A. Professor of Accounting in the Deportment Route 7, Box 220 of Monogement Sciences Mary Ann Black (1974), M.S. (North Carolina) Associote in Psychiotric Sociol Work in the Deportment of Psychiotry 2939 Driftwood Drive Elizabeth C. Blackburn (1972), M.Ed. (Virginia Commonwealth) Associote in Rodiology 1009 Stonehedge Avenue ²⁵John O. Blackburn (1962), Ph.D. (Florida), C.P.A. Professor of Economics 208 Pineview Road Lillian R. Blackmon (1973), M.D. (Arkansas) Assistant Professor of Pediotrics and Assistant Professor Apartment 18-B of Obstetrics and Gynecology 2836 Chapel Hill Road Charles Albert Blake (1972), Ph.D. (California at Los Angeles) Assistant Professor of Anotomy 3910 Hope Valley Road Robert Lincoln Blake (1949) Associote in Medicol Art in the Division of Audiovisuol Educotion 609 Ruby Street Kalman P. Bland (1973), Ph.D. (Brandeis) Assistant Professor of Religion 2711 Augusta Drive William F. Blankley (1972), Ph.D. (California at San Diego) 119 Turner Street Assistant Professor of Botony Beaufort, N. C. ²⁶G. Douglas Blenkarn (1971), M.D. (Univ. of Toronto) Associote Professor of Anesthesiology and Assistant Professor of Physiology and Phormocology 1516 Woodburn Road Jacob Joseph Blum (1962), Ph.D. (Chicago) Professor of Physiology 2525 Perkins Road W. M. Blount (1974), B.A. (U. S. Naval Academy) Visiting Assistant Professor of Novol Science Route 8, Glen Oaks Drive

Assistant Professor of Low 3803 Hillgrand Drive Bruce R. Bolnick (1974), Ph.D. (Yale) Apartment 25-H Visiting Assistant Professor of Economics 2752 Middleton Street Dani P. Bolognesi (1971), Ph.D. (Duke)

Associote Professor of Experimental Surgery and

Assistant Professor of Virology

Anthony Bocchino (1974), J.D. (Connecticut)

2511 Sevier Street

24Retired 8-31-74.

26Through 10-31-74.

²⁵Sabbatical leave, fall 1974-75.

Robert A. Bonar (1959), Ph.D. (California at Berkeley) Route 2, Box 407-A Associote Professor of Biophysics in the Chapel Hill, N. C. Department of Surgery Joseph Bonaventura (1972), Ph.D. (Texas) 619 Ann Street Beaufort, N. C. Associate in Biachemistry Allan Hadley Bone (1944), M.M. (Eastman) 2725 Sevier Street Professor of Music ²⁷Robert C. Bonhag (1973), M.H.A. (Duke) Associate in Community Health Sciences 600 Starmont Drive lames Bonk (1959), Ph.D. (Ohio State) 112 Pinecrest Road Professor of Chemistry Jack W. Bonner III (1971), M.D. (Texas) 27 Windsor Road Assistant Professor of Psychiotry Asheville, N. C. Cazlyn Green Bookhout (1935), Ph.D. (Duke) 1307 Alabama Avenue Prafessor of Zoology Elizabeth Circle Bookhout (1932-43; 1945), Ph.D. (New York) Professor of Physical Education 1307 Alabama Avenue ²⁸James A. Boon (1974), Ph.D. (Chicago) 97 Einstein Drive Princeton, N. I. Assistant Professor of Anthropology Frank L. Barchardt (1971), Ph.D. (Johns Hopkins) Associate Professor of Germanic Longuoges 100 East Forest Hills Boulevard Lynn Gordon Borchert (1973), M.D. (Michigan) Apartment 3-H Assistant Professor of Obstetrics and Gynecology 1505 Duke University Road Lloyd J. Borstelmann (1953), Ph.D. (California at Berkeley) Professor of Psychology and Professor of Medical Psychology in the Deportment of Psychiotry 2506 Francis Street Edward Hecht Bossen (1972), M.D. (Duke) Assistant Professor of Pothology 7 Thackeray Shirley Elaine Potts Bourbous (1970), M.S.N. (North Carolina at Chapel Hill) Assistant Professor of Nursing 1106 Hill Street ²⁹Elizabeth B. Bowling (1972), M.S.N. (Duke) Instructor in Nursing 2409 Vesson Avenue J. E. Boynton (1968), Ph.D. (California at Davis) Associote Professor of Botony 1808 Woodburn Road Joyce Bracewell (1973), M.S.W. (Florida State) 74 Manetta Road Associote in Psychiatric Social Work Asheville, N. C. William Dalton Bradford (1966), M.D. (Western Reserve) Associote Professor of Pothology and Assistant Professor of Pediatrics 3724 Hope Valley Road David Gilbert Bradley (1949), Ph.D. (Yale) Professor of Religian 2507 Sevier Street Charles Kilgo Bradsher (1939), Ph.D. (Harvard) Jomes B. Duke Professor of Chemistry 118 Pinecrest Road 30Ralph Braibanti (1953), Ph.D. (Syracuse) James B. Duke Professor of Political Science 3805 Darby Road Robert Griffin Brame (1970), M.D. (North Carolina) Professor of Obstetrics and Gynecology 2806 De Kalb Street Eleanor F. Branch (1972), Ph.D. (Duke) Associote Professor of Physical Theropy 207 Oak Hill Drive ³¹Joan B. Breedlove (1970), M.S.N. (Duke) Assistant Professor of Nursing School of Nursing Jack W. Brehm (1958), Ph.D. (Minnesota) Professor of Psychology 2801 Dogwood Road ³²Mary Lee Brehm (1969), Ph.D. (North Carolina) Assistant Professor of Medical Sociology in the

1212 Roosevelt Drive

Chapel Hill, N. C.

of Sociology

Deportment of Psychiotry and Assistant Professor

²⁷Through 8-9-74.

²⁸Leave of absence 1974-75.

²⁹Through 8-31-74.

³⁰Sabbatical leave, spring 1974-75. 31Leave of absence 1-1-74 through 12-31-74.

¹²Through 8-31-74.

| Frank J. Breslin (1974), M.D. (Tufts) | Apartment 72-D |
|--|------------------------------|
| Associote in Community Heolth Sciences | Colonial Apartments |
| Marianne Breslin (1968), M.D. (Medical Academy, | |
| Dusseldorf, Germany) | 1604 Michaux Road |
| Associate Professor of Psychiatry | Chapel Hill, N. C. |
| Bernard Bressler (1954), M.D. (Washington) Professor of Psychiotry | 2700 Circle Drive |
| David L. Brewer (1969), M.D. (Oklahoma) | 2700 Circle Drive |
| Assistant Professor of Medicine | 2811 Stuart Drive |
| Gert Henry Brieger (1970), M.D. (California at | 2011 Ottaut 21110 |
| Los Angeles), Ph.D. (Johns Hopkins) | |
| Associote Professor of Community Heolth Sciences and | |
| Associate Professor of the History of Medicine | 2742 Circle Drive |
| William H. Briner (1970), B.S. (Temple) | |
| Assistant Professor of Rodiology | 3100 Ithaca Court |
| ³³ Mary S. Britt (1969), M.S. (Bowman Gray) | 2 Maxwell Road |
| Associate in Pothology | Chapel Hill, N. C. |
| H. Keith H. Brodie (1974), M.D. (Columbia) | 62 B |
| Professor of Psychiotry Levin A. Produ (1964) M.D. (Benneylyania) | 63 Beverly Drive |
| Irwin A. Brody (1964), M.D. (Pennsylvania) Associote Professor of Neurology in the | Route 4 |
| Deportment of Medicine | Hillsborough, N. C. |
| Martin Bronfenbrenner (1971), Ph.D. (Chicago) | illisbolough, iv. C. |
| William R. Kenan, Jr. Professor of Economics | 2915 Friendship Road |
| Charlotte Vestal Brown (1971), A.B. (North Carolina | 2010 Hendship Rodd |
| at Greensboro) | 1206 Williamson Drive |
| Visiting Lecturer in Art | Raleigh, N. C. |
| Earl I. Brown, II (1960), Ph.D. (Texas) | 3 , |
| J. A. Jones Professor of Civil Engineering | 1631 Marion Avenue |
| Jay Howard Joel Brown (1974), M.D. (Boston Univ.) | |
| Assistant Professor of Anesthesiology | 5343 Yardley Terrace |
| George William Brumley, Jr. (1967), M.D. (Duke) | |
| Associote Professor of Pediotrics ond Associote | |
| Professor of Obstetrics and Gynecology | 3415 Surry Road |
| Dorothy J. Brundage (1968), M.N. (Emory) | Route 6, Box 215 |
| Assistant Professor of Nursing | Mebane, N. C. |
| Frederick P. Bruno (1972), M.S. (Florida) Associote in Rodiology, Nucleor Medicine Division | 813 Chalice Street |
| Anne-Marie Bryan (1961), M.A.T. (Duke) | o 13 Chance Street |
| Assistant Professor of Romance Languages | 1017 Norwood Avenue |
| Paul Robey Bryan, Jr. (1951), Ph.D. (Michigan) | 1017 1401 WOOd 71 Chide |
| Associote Professor of Music | 1108 Watts Street |
| ¹⁵ Andrew L. Bryant (1972), B.S. (Millersville State Coll.) | |
| Temporory Instructor in Botony | 3012 Dixon Road |
| C. Edward Buckley (1963), M.D. (Duke) | |
| Associote Professor of Medicine ond Assistant | |
| Professor of Microbiology and Immunology | 3621 Westover Road |
| Rebecca Hatcher Buckley (1968), M.D. (North Carolina) | |
| Associote Professor of Pediotrics ond | |
| Associote Professor of Immunology | 3621 Westover Road |
| Katherine K. Buckner (1974), M.S.W. (North Carolina at Chap | |
| Associote in Psychiotric Sociol Work in the | Box 1206, 309 Glendale Drive |
| Deportment of Psychiotry | Chapel Hill, N. C. |
| Louis J. Budd (1952), Ph.D. (Wisconsin) | 2753 McDowell Street |
| Professor of English ³⁶ Albert George Buehler (1955), M.A. (North Carolina) | 2/55 McDowell Street |
| Professor of Physical Education | 1718 Woodburn Road |
| 1 to jessor of the steet Educotion | 17 TO WOODDUIN NOAU |

Assistant Professor of Nursing

Grace Bullock (1957-59; 1967), M.S.N. (North Carolina)

3729 Hermine Street

³³Through 9-1-74. ³⁴Sabbatical leave 1974-75, ³⁵Through 5-31-74. ³⁶Sabbatical leave, fall 1974-75.

| Stephen D. Bundy (1974), M.S.P.H. (North Carolina at Chapel Hill) Associote in Community Health Sciences J. Gordon Burch (1971), M.D. (Univ. of Alberta) | Route 2, Box 375 Chapel Hill, N. C. |
|--|---|
| Assistant Professor of Medicine and Assistant | 3508 Manford Drive |
| Professor of Pediatrics Donald S. Burdick (1962), Ph.D. (Princeton) | 108 Emerald Circle |
| Associate Professor of Mathematics Walter W. Burford (1970), S.T.M. (Yale) | |
| Assistant Professor of Religion Peter C. Burger (1973), M.D. (Northwestern) Assistant Professor of Pothology | 120 West Lynch Street Apartment 13-E 311 South LaSalle Street |
| Peter Burian (1968), Ph.D. (Princeton) Assistant Professor of Clossicol Studies | 1610 Delaware Avenue |
| Richard O. Burns (1964), Ph.D. (Illinois) Professor of Microbiology | 4117 Pavilion Place |
| Richard M. Burton (1970), D.B.A. (Illinois) Associote Professor of Business Administration | 1639 Marion Avenue |
| Ewald W. Busse (1953), M.D. (Washington) J. P. Gibbons Professor of Psychiatry | 1132 Woodburn Road |
| Ronald R. Butters (1967), Ph.D. (Iowa) Associote Professor of History | 214-B Henderson Chapel Hill, N. C. |
| Gale H. Buzzard (1957), Ph.D. (North Carolina State) Assistont Professor of Mechanical Engineering | 2716 Tryon Road |
| Roger W. Byhardt (1974), M.D. (Marquette) Assistont Professor of Rodiology | 2629 Cornwallis Road Box 168, Route 4 |
| Edwin H. Cady (1973), Ph.D. (Wisconsin) Professor of English Ch. C. March (1988), Ph.D. (Darks) | Hillsborough, N. C. |
| Clark Cahow (1968), Ph.D. (Duke) Associote Professor in the Foculty of Arts and Sciences | 1106 Watts Street |
| Phillip B. Calkins (1973), Ph.D. (Chicago) Assistont Professor of History Jasper Lamar Callaway (1937), M.D. (Duke) | 415 Monticello Avenue |
| Jomes B. Duke Professor of Dermotology Richard T. Campbell (1974), Ph.D. (Wisconsin) | 26 Stoneridge Circle |
| Assistant Professor of Sociology Murray R. Cantor (1974), Ph.D. (California at Berkeley) | 1114 Wells Street |
| Assistant Professor of Mothemotics Peter Carbone (1966), Ed.D. (Harvard) | 1022 Rose Hill Avenue |
| Associate Professor of Education Leonard Carlitz (1932), Ph.D. (Pennsylvania) | 111 Brenrose Court |
| James B. Duke Professor of Mothemotics Robert C. Carson (1960), Ph.D. (Northwestern) | 2303 Cranford Road |
| Professor of Psychology and Professor of Medical Psychology in the Department of Psychiatry | 6502 Hunter's Lane |
|)ames H. Carter (1971). M.D. (Howard) Assistont Professor of Psychiotry | 3310 Pine Grove Road Raleigh, N. C. |
| Reginald D. Carter (1971), Ph.D. (Bowman Gray) Assistont Professor of Community Heolth Sciences and | Route 4, Box 63 |
| Assistont Professor of Physiology Matthew Cartmill (1969), Ph.D. (Chicago) Associote Professor of Anotomy and Associote | Hillsborough, N. C. |
| Professor of Anthropology William H. Cartwright (1951), Ph.D. (Minnesota) | Route 1, Box 329A |
| Professor of Education Ernesto G. Caserta (1970), Ph.D. (Harvard) | 3610 Britt Street |
| Assistant Professor of Romance Longuages John H. Casseday (1972), Ph.D. (Indiana) | 2516 Sevier Street |
| Assistont Professor of Otoloryngology in the Deportment of Surgery and Lecturer in Psychology | Apartment 18-) 2836 Chapel Hill Road |
| ³⁷ Ronald Casson (1971), Ph.D. (Stanford) Assistant Professor of Anthropology | 1702 Vista Street |
| Thomas R. Cate (1968), M.D. (Vanderbilt) Associote Professor of Medicine | 3123 Camelot Court |
| | |

³⁷Leave of absence, fall 1974-75.

G. S. T. Cavanagh (1962), B.L.S. (McGill) Prafessor of Medical Literature 42 Kimberly Drive Patrick J. Cavanaugh (1960), M.D. (St. Louis) Prafessor of Radiology 1535 Hermitage Court Jesse O. Cavenar (1971), M.D. (Arkansas) 411 Overland Drive Assistant Professor of Psychiatry Chapel Hill, N. C. John W. Cell (1962), Ph.D. (Duke) 1011 Highland Woods Associate Professor of History Chapel Hill, N. C. Jack B. Chaddock (1966), Sc.D. (Massachusetts Inst. of Tech.) Professor of Mechanical Engineering 10 Learned Place 38William H. Chafe (1971), Ph.D. (Columbia) 820 Tinkerbell Road Associate Professor of History Chapel Hill, N. C. Leon E. Chaiken (1952), M.F. (Cornell) Professor of Forest Management 2737 Dogwood Raad Arthur C. Chandler, Jr. (1965), M.D. (Duke) Associote Professor of Ophthalmology and Associote in Anatomy 3508 Cambridge Road James H. Charlesworth (1969), Ph.D. (Duke) Assistont Professor of Religion 19 Learned Place James T. T. Chen (1965), M.D. (National Defense Med. Center, Taipei, Taiwan) Associote Professor of Rodiology 2528 Sevier Street Donald B. Chesnut (1965), Ph.D. (California Inst. of Tech.) Professor of Chemistry 4404 Malvern Road Kwok-Sing Cheung (1974), Ph.D. (Saskatchewan) Associote in Pediotrics 2229-F Lafavette Street Arthur C. Christakos (1963), M.D. (South Carolina) Professor of Obstetrics and Gynecology and Associate Professor of Community Heolth Sciences 3102 Surry Road Norman L. Christensen, Jr. (1973), Ph.D. (California at Santa Barbara) Assistant Professor of Botony 104 Bennett Court ³⁹George C. Christie (1967), S.J.D. (Harvard) Apartment 17-G Professor of Low 2836 Chapel Hill Road Ronald Yan-li Chuang (1972), Ph.D. (California at Davis) Assistont Professor of Experimental Medicine and Apartment 23-H, II Assistant Professor of Phormacology 2752 Middleton Street Giorgio Ciompi (1964), M.A. (Paris Conservatory) Artist in Residence in the Deportment of Music 3614 Westover Road James R. Clapp (1963), M.D. (North Carolina Professor of Medicine ond Associote Professor Route 3 of Physiology 4030 King Charles Road 40Elon Henry Clark (1934) Professor of Medical Art in the Division af Audiovisuol Educotion 801 West Maynard Avenue Henry B. Clark (1966), Ph.D. (Yale) Associote Professor of Religion 3108 Camelot Court 41Howard Clark (1968), Ph.D. (Maryland) Associote Professor of Mechonicol Engineering ond Biomedical Engineering 19 Oak Drive Frederic N. Cleaveland (1971), Ph.D. (Princeton) 1822 North Lakeshore Drive Professor of Political Science Chapel Hill, N. C. ⁴²John M. Clement (1972), Ph.D. (Rensselar Polytechnic Inst.) Apartment 31-C 2752 Middleton Street Instructor in Physics William Porter Cleveland (1972), Ph.D. (Wisconsin) Assistant Professor of Community Health Sciences 2020 Sunset Avenue Edward Clifford (1965), Ph.D. (Minnesota) Professor of Medical Psychology in the Department of Psychiatry, Professor of Medicol Psychology in the Deportment of Surgery, and Lecturer in Psychology 2535 Sevier Street Frank W. Clippinger (1957), M.D. (Washington) Professor of Orthopoedic Surgery 3514 Rugby Road 38Leave of absence 1974-75.

³⁹Sabbatical leave, spring 1974-75.

⁴⁰Retired 6-30-74

⁴¹Sabbatical leave 1974-75.

⁴²Through 8-31-74.

| ⁴³ G. Wayne Claugh (1969), Ph.D. (California at Berkeley) Associate Professor of Civil Engineering | 1108 Anderson Street |
|---|---|
| John L. E. Clubbe (1966), Ph.D. (Columbia) Associote Professor of English | 3729 Swathmore Road |
| John M. Clum (1966), Ph.D. (Princeton) | Pay 6725 Callege Station |
| Assistant Professor of English Frederick R. Cobb (1971), M.D. (Mississippi) | Box 6725, College Station |
| Assistant Professor of Medicine and Associate in Physiology Franklin H. Cocks (1972), Sc.D. (Massachusetts Inst. of Tech.) | 3723 Suffolk Street Apartment 22-D |
| Associate Professor of Mechanical Engineering | 2836 Chapel Hill Road |
| Harvey Jay Cohen (1971), M.D. (State Univ. of New York) Assistant Professor of Medicine | 2811 Friendship Circle |
| Kalman J. Cohen (1974), Ph.D. (Carnegie-Mellon) Distinguished Bonk Reseorch Professor ond Professor | 2312 Honeysuckle Court |
| of Business Administration | Chapel Hill, N. C. |
| ⁴⁴ John Coie (1968), Ph.D. (California at Berkeley) Associate Professor of Psychology | 2801 Dogwood Road |
| Jerry Coker (1974), M.A. (Sam Houston State Univ.) | Route 2, Box 599 |
| Visiting Lecturer in Jozz Studies James M. Colacino (1973), Ph.D. (State Univ. of New York at Bu | Cary, N. C. iffalo) Apartment 87-C |
| Temporory Instructor in Zoology 48A. F. David Cole (1972), M.D. (Toronto) | 3022 Chapel Hill Road |
| Assistant Professor of Anesthesiology and Assistant | |
| Professor of Obstetrics and Gynecology Byron K. Cole (1972), M.D. (Cincinnati) | 2624 McDowell Street 237 Knollwood Drive |
| Assistant Professor of Community Health Sciences | Chapel Hill, N. C. |
| Robert Taylor Cole (1935), Ph.D. (Harvard) Jomes B. Duke Reseorch Professor of Political Science | 7 Sylvan Road |
| T. Boyce Cole (1969), M.D. (North Carolina) Associote Professor of Otoloryngology | 223 Pineview Road |
| Richard G. Coleman (1974), Ph.D. (North Carolina at Chapel Hill) | |
| Assistont Professor of Medicol Psychology in the Department of Psychiotry | 719 Davidson Street Raleigh, N. C. |
| ⁴⁶ Joel G. Colton (1947), Ph.D. (Columbia) | 1616 Pinecrest Road |
| Professor of History Robert Merle Colver (1953), Ed.D. (Kansas) | 1616 riffecrest Road |
| Associote Professor of Educotion 47Norman Francis Conant (1935), Ph.D. (Harvard) | 2720 Circle Drive |
| Jomes B. Duke Professor of Microbiology | 5622 Garrett Road |
| Anthony Conger (1973), Ph.D. (Illinois) Visiting Associate Professor of Psychology | 311 Estes Drive Chapel Hill, N. C. |
| John L. Connolly, Jr. (1974), Ph.D. (Pennsylvania) Visiting Assistant Professor of Art | |
| Frank Convery (1971). Ph.D. (State Univ. of New York) | 1901-A James Street |
| Assistont Professor of Forest Resource Economics Philip J. Cook (1973), Ph.D. (California at Berkeley) | 2315 Wilson Street 45 Windsor Circle |
| Assistant Professor of Policy Sciences and Economics | Chapel Hill, N. C. |
| Samuel DuBois Cook (1966), Ph.D. (Ohio State), LL.D. Professor of Political Science | 2733 Sevier Street |
| Wesley A. Cook, Jr. (1971), M.D. (Oregon) Assistant Professor of Neurosurgery and Assistant | Pouto 2 Roy 160 |
| Professar of Physiology | Route 2, Box 160 Chapel Hill, N. C. |
| Hallie M. Cappedge (1966). M.S.W. (North Carolina) Associote in Psychiotric Social Work | 3435 Cromwell Road |
| Thomas Howard Cordle (1950), Ph.D. (Yale) | |
| Professor of Romonce Languages Joseph M. Corless (1972), Ph.D. (Duke) | 916 West Markham Avenue |
| Assistont Professor of Anotomy and Associate in Ophtholmology | 2326 Glendale Avenue |
| 1 | 2020 Olelidate Avenue |

⁴³Through 8-31-74.
⁴³Sabbatical leave 1974-75.
⁴⁵Through 9-30-74.
⁴⁶Sabbatical leave, spring 1974-75, and leave of absence 9-1-74 through 8-31-76.
⁴⁷Retired 6-30-74.

Roger J. Corless (1970), Ph.D. (Wisconsin) Apartment 10-B Assistant Professor of Religion 1600 Anderson Street Bruce A. Corrie (1965), Ph.D. (Indiana) Assistant Professar of Physical Education 3223 Haddon Road 48 James A. Corry (1974), LL.M. (Columbia) Visiting Distinguished Professor of Political Science 22-C Valley Terrace Apartments 49Philip Costanzo (1968), Ph.D. (Florida) Associate Professor of Psychology 2527 Wrightwood Avenue John D. Costlow (1959), Ph.D. (Duke) 201 Ann Street Professor of Zoology Sheila J. Counce (1968), Ph.D. (Edinburgh) Beaufort, N. C. Associote Professor of Anotomy 3101 Camelot Court 50Dario A. Covi (1970), Ph.D. (New York Univ.) Professor of Art 1010 Monmouth Avenue Robert Calvin Cox (1942), M.A. (Columbia) Associote Professor of Physical Education 1913 University Drive Linda C. Craig (1972), M.S.N. (North Carolina at Chapel Hill) Assistant Professor of Nursing 2414 West Club Boulevard William T. Creasman (1970), M.D. (Baylor) Associote Professor of Obstetrics and Gynecology 2944 Friendship Road Marion Carlyle Crenshaw (1964), M.D. (Duke) E. C. Homblen Professor of Fomily Planning and Reproductive Medicine, Assistant Professor of Route 8, Box 161 Pediotrics, and Associate in Physiology Roxboro Road Peter Cresswell (1973), Ph.D. (Univ. of London) Assistant Professor of Immunology 1913 Ward Street Elaine Kobrin Crovitz (1965), Ph.D. (Duke) Assistant Professor of Medical Psychology in the Deportment of Psychiotry and Lecturer in Psychology 2745 Montgomery Street Herbert Crovitz (1963), Ph.D. (Duke) Professor of Medical Psychology in the Department of Psychiotry and Lecturer in Psychology 3600 Tremont Drive Alvin L. Crumbliss (1970), Ph.D. (Northwestern) Assistant Professor of Chemistry 2826 Stuart Drive William L. Culberson (1955), Ph.D. (Wisconsin) Route 7 Professor of Botony George King Road William D. Currie (1967), Ph.D. (North Carolina at Chapel Hill) Associote Professor of Rodiology 3611 Randolph Road Robert Earl Cushman (1945), B.D., Ph.D. (Yale) Research Professor of Systematic Theology 2719 Spencer Street Ronald Y. Cusson (1970), Ph.D. (California Inst. of Tech.) Apartment 3-H Associote Professor of Physics 2716 Middleton Street Jarir S. Dajani (1971), Ph.D. (Northwestern) Assistant Professor of Civil Engineering 3605 Suffolk Street William W. Damon (1970), Ph.D. (Cornell) Assistant Professor of Business Administration 5600 Woodberry Road Charles A. Daniels (1970), Ph.D. (Duke) Associote Professor of Pothology 4 Sylvan Road Ollie B. Davenport (1961), M.S.N. (Western Reserve) Assistont Professor of Nursing 905 West Knox Street Jack Dougan Davidson (1970), M.D. (Columbia) Associote Professor of Rodiology 3506 Westover Road ⁵¹David George Davies (1961), Ph.D. (California at Los Angeles) Professor of Economics 2631 McDowell Street William David Davies (1966), D.D. (Wales) George Woshington Ivey Professor of Advonced Studies in New Testoment ond Research in Christian Origins 228 Monticello Avenue

Calvin D. Davis (1962), Ph.D. (Indiana) Associote Professor of History

907 Monmouth Avenue

⁴⁸Through 5-31-74.

⁴⁹Sabbatical leave 1974-75.

⁵⁰Leave of absence 1974-75.

⁵¹Sabbatical leave, spring 1974-75.

| David A. Davis (1971). M.D. (Vanderbilt) Professor of Anesthesiology | Kings Mill Road Chapel Hill, N. C. |
|---|--|
| Gifford Davis (1930), Ph.D. (Harvard) Professor of Romonce Languages | 2248 Cranford Road |
| James Norman Davis (1972), M.D. (Cornell) | |
| Assistant Professor of Medicine (Neurology) Lucy Tolbert Davis (1969), Ed.D. (Columbia) | 3509 Suffolk Street |
| Associate Professor of Education and Clinical Association Therapeutic Education, Department of Psychiatry | te 705 Gimghoul Road Chapel Hill, N. C. |
| Ron W. Davis (1970), Ed.D. (Columbia) | 705 Gimghoul Road |
| Associate in Community Health Sciences | Chapel Hill, N. C. |
| Walter Etchells Davis (1972), M.D. (Duke) | |
| Assistant Professor of Medicine | 3815 St. Marks Road |
| Jeffrey R. Dawson (1972). Ph.D. (Case Western Reserve) | 902 Clarion Drive |
| Assistant Professor of Immunology Eugene Davis Day (1962), Ph.D. (Delaware) | 902 Clarion Drive |
| Professor of Immunology and Professor of | |
| Experimental Surgery | 2727 McDowell Street |
| Nell L. Deaver (1972), B.S. (Sargent) | P. O. Box 1357 |
| Associote in Physicol Therapy | Tryon, N. C. |
| John Essary Dees (1939), M.D. (Virginia) | 110 0 11 01 1 |
| Professor of Urology Sycan Georg Page (1939) M.D. (Jehns Heaking) | 413 Carolina Circle |
| Susan Coons Dees (1939), M.D. (Johns Hopkins) Professor of Pediotrics | 413 Carolina Circle |
| Thomas Jeremiah Delaney (1974), M.S. (Naval Postgraduate S | |
| Assistant Professor of Health Administration | 1602 Stacy Drive |
| David C. Dellinger (1968), Ph.D. (Stanford) | |
| Associate Professor of Business Administration | 19 Heath Place |
| Walter E. Dellinger, III (1969), LL.B. (Yale) Professor of Low | 513 Franklin Street Chapel Hill, N. C. |
| Frank De Lucia (1969), Ph.D. (Duke) | Chaper Hill, N. C. |
| Assistant Professor of Physics | 1618 North Duke Street |
| Neil B. de Marchi (1971), Ph.D. (Australian National Univ.) | 2437 Sedgefield Drive |
| Assistant Professor of Economics | Chapel Hill, N. C. |
| William J. A. DeMaria (1951), M.D. (Duke) | and the Dark |
| Professor of Pediatrics | 1126 Woodburn Road |
| Peter J. Dempsey (1974), M.D. (St. Louis) Assistont Professor of Radiology | Apartment E-9 3600 Tremont Drive |
| A. Leigh DeNeef (1969), Ph.D. (Pennsylvania State) | 3000 Hemoni Brive |
| Assistont Professor of English | 3406 Denise Street |
| Vincent W. Dennis (1973), M.D. (Georgetown) | |
| Assistant Professor of Medicine | 3806 Hillgrand Circle |
| Betsy J. Denny (1971), B.S. (North Carolina) Associate in Physical Theropy | E201 Perpercent |
| Sara Jamison Dent (1965), M.D. (South Carolina) | 5201 Peppercorn Route 4, Box 526 |
| Professor of Anesthesiology | Hillsborough, N. C. |
| Gretchen J. Dery (1969), M.S. (Catholic Univ.) | |
| Assistant Professor of Nursing | 1329 Clermont Drive |
| 52Frank Traver deVyver (1935), Ph.D. (Princeton) | 0.01 - 0.1 |
| Professor of Economics Irving T. Diamond (1958), Ph.D. (Chicago) | 8 Sylvan Road |
| James B. Duke Professor of Psychology, Professor | |
| of Physiology, and Lecturer in Anotomy | 2745 McDowell Road |
| ⁵³ Joseph Di Bona (1967), Ph.D. (California at Berkeley) | Route 1, Box 306 |
| Associate Professor of Education | Timberlake, N. C. |
| Robert L. Dickens (1949), M.S. (North Carolina), C.P.A., LL.I Professor of Accounting in the Deportment of | J. |
| Management Sciences | 2717 Circle Drive |
| Kenneth Robert Diehl (1972), D.M.D. (Harvard) | 2717 Chere Diffe |
| Assistant Professor of Orthodontics in the Department | |
| of Surgary | occa Millian Drive |

2961 Welcome Drive

of Surgery

⁵²Retired 8-31-74. ⁵³Sabbatical leave, fall 1974-75.

Arif Dirlik (1971), Ph.D. (Rochester) Assistant Professor of History 2101 Strebor Road 54Mundrathi Divadeenam (1973), Ph.D. (Duke) Instructor in Physics 3927 Linden Terrace Bruce W. Dixon (1970), M.D. (Pittsburgh) Apartment 14 2117 Bedford Avenue Assistant Professor of Medicine Richard H. Dixon (1972), M.D. (Duke) Associnte in Medicine 1607 Hermitage Court Frank C. Dorsey (1971), Ph.D. (Duke) Assistant Professor of Community Health Sciences, Assistant Professor of Pothology, and Lecturer in the the School of Nursing 204 Forestwood Drive Fenner Douglass (1974), M.Mus. (Oberlin Coll.) Professor of Music 1516 Woodburn Road 55 Jonathan Dranov (1973), M.D. (Pennsylvania) Associote in the Deportment of Medicine ond Associote in Community Heolth Sciences 56William H. Dray (1973), D.Phil. (Oxford) Professor of Philosophy 2719 McDowell Road ⁵⁷Francis George Dressel (1929), Ph.D. (Duke) Professor of Mothemotics 2502 Francis Street Duane A. Dreyer (1974), Ph.D. (Pittsburgh) 317 Brandywine Road Associote in Neurosurgery and Associote in Physiology Chapel Hill, N. C. 58Chancellor Driscoll (1969), M.S.S.W. (Louisville) Associote in Psychiotric Sociol Work 2717 Augusta Drive 59Bernard I. Duffey (1963), Ph.D. (Ohio State) Professor of English 2732 Dogwood Road Christopher John Robert Dugard (1974), LL.B. (Cambridge) Apartment 14-B Visiting Professor of Low 2752 Middleton Street Kenneth Lindsay Duke (1940), Ph.D. (Duke) Associote Professor of Anotomy 2736 McDowell Street Stephen O. Duke (1974), M.S. (Arkansas) Tempornry Instructor in Botony 1023 Wells Street 60 Ian Douglas Duncan (1972), M.B., Ch.B. (St. Andrews Univ., Scotland) Associote in Obstetrics and Gynecology 1210 Anderson Street Walter N. Duran (1974), Ph.D. (Catholic Univ., Chile) Adjunct Assistant Professor of Physiology and Apartment 16-F Adjunct Assistant Professor of Experimental Surgery 2836 Chapel Hill Road Robert F. Durden (1952), Ph.D. (Princeton) Professor of History 2532 Wrightwood Avenue Jiri Dvorak (1967), Ph.D. (Brown) Professor of Civil Engineering 2956 Friendship Road Elaine M. Eckel (1971), M.A. (North Carolina at Chapel Hill) 26-B Davie Circle Assistant Professor of Physical Therapy Chapel Hill, N. C. Carol O. Eckerman (1972), Ph.D. (Columbia) 301 Hoot Owl Lane Assistant Professor of Psychology Chapel Hill, N. C. Ruth Buchanan Eddy (1952), M.S. (Smith)
Associote Professor of Physical Education 702 Louise Circle Curtis Drew Edwards (1972), Ph.D (Florida State) Assistant Professor of Medical Psychology in the Deportment of Psychiotry and Associate in Pediatrics 906 West Maynard Avenue Herbert O. Edwards, Sr. (1974), Ph.D. (Brown) Apartment C-2 Associote Professor of Block Church Studies 2300 Pratt Avenue Sam Edwards (1974), M.D. (Duke) Associote in Pediotrics 3412 Cromwell Road James Michael Efird (1962), Ph.D. (Duke) Associote Professor of Biblicol Longuoges ond Apartment L-1 Interpretotions 2800 Croasdaile Drive 54Through 6-30-74.

⁵⁵Through 6-30-74.

⁵⁶Through 8-31-74.

⁵⁷Retired 8-31-74.

⁵⁸Through 8-31-74

⁵⁹Leave of absence, fall 1974-75.

⁶⁰Through 6-30-74.

| Kenneth E. Ekman (1973), Ph.D. (Massachusetts Inst. of Tech.) Instructor in Mothemotics Jane G. Elchlepp (1960), Ph.D. (Chicago) | Apartment D-2 1312 Wyldewood Road Route 1, Box 77 Cornwallis Road |
|--|--|
| Associote Professor of Pothology Albert F. Eldridge (1970), Ph.D. (Kentucky) Assistant Professor of Political Science | 806 Onslow Street |
| Howard L. Elford (1969), Ph.D. (Cornell) Assistant Professor of Experimental Medicine and Assistant Professor of Phormacology Everett H. Ellinwood, Jr. (1966), M.D. (North Carolina at Chapel Hill) | Apartment 14 18 Balm <i>o</i> ray Court |
| Professor of Psychiotry and Assistant Professor of Phormocology | 3519 Tonbridge Way |
| George John Ellis. III (1970), M.D. (Harvard) Assistant Professor of Medicine | 2743 Sevier Street |
| Ernest Elsevier (1950), M.S.M.E. (Georgia Inst. of Tech.) | 2412 Wrightwood Avenue |
| Associote Professor of Mechonicol Engineering Carl Erickson (1966), Ph.D. (Rutgers) | |
| Associote Professor of Psychology Harold P. Erickson (1970), Ph.D. (Johns Hopkins) | 106 Newell Street |
| Assistant Professor of Anotomy | 1108 Minerva Avenue |
| ⁶¹ Robert P. Erickson (1961), Ph.D. (Brown) Professor of Psychology and Associate Professor of Physiology | Terry Road Hillsborough, N. C. |
| Charles W. Erwin (1969), M.D. (Texas) Associote Professor of Psychiotry | 15 Scott Place |
| Antonio Valentino Escuela (1970), M.D. (Univ. of St. Thomas, Ph. Assistont Professor of Medicine and Assistont | ilippines) |
| Professor of Physiology and Pharmacology | 1601 Kent Street |
| E. Harvey Estes, Jr. (1953), M.D. (Emory) Professor of Medicine and Professor of | 27.0 H |
| Community Heolth Sciences Evan A. Evans (1973), Ph.D. (California at San Diego) | 3542 Hamstead Court |
| Assistant Professor of Biomedical Engineering and Assistant Professor of Experimental Orthopoedics | Apartment 22-I 2836 Chapel Hill Road |
| Lawrence E. Evans (1963), Ph.D. (Johns Hopkins) | · |
| Associote Professor of Physics 62]ohn Wendell Everett (1932), Ph.D. (Yale) | 1020 Demerius Street |
| Professor of Anotomy | 1105 Woodburn Road |
| Robinson Oscar Everett (1956), LL.M. (Duke) Professor of Low | 601 1-A LaSalle Street |
| Mark Evers (1973), M.A. (Michigan) | 2004 1 1' Ct |
| Instructor in Sociology Isabelle R. Faeder (1972), Ph.D. (Cornell) | 2601 Acadia Street Apartment 23-F |
| Lecturer in Anotomy | 3000 Shannon Road |
| Lennart Fagraeus (1974), Ph.D. (Karolinska Inst., Sweden) Visiting Assistont Professor of Anesthesiology | 714 Churchill Drive Chapel Hill, N. C. |
| Henry A. Fairbank (1962), Ph.D. (Yale) Professor of Physics | 1515 Pinecrest Road |
| Carmen M. Falcone (1946), M.A. (Ohio State) | 1313 Fillectest Road |
| Professor of Physical Educotion ⁶³ W. Edwin Fann (1971), M.D. (Alabama) | 1402 Woodburn Road |
| Associote Professor of Psychiotry | 3726 Saint Marks Road |
| Joseph C. Farmer, Jr. (1971), M.D. (Duke) Assistont Professor of Otoloryngology | 3020 Harriman Avenue |
| Donn Michael Farris (1959), M.Div. (Duke) Professor of Theologicol Bibliography | 921 Buchanan Boulevard |
| Thomas R. Faschingbauer (1973), Ph.D. (North Carolina) | |
| Assistant Professor of Medical Psychology in the Department of Psychiatry | Route 1, Box 280 Black Mountain, N. C. |
| John Morton Fein (1950), Ph.D. (Harvard) | |
| Professor of Romonce Longuoges | 2726 Montgomery Street |

⁶¹Sabbatical leave, spring 1974-75.
⁶²Sabbatical leave 1-1-75 through 6-30-75.
⁶³Through 7-1-74.

Jerome Feldman (1968), M.D. (Northwestern) Associote Professor of Medicine 2744 Sevier Street Robert E. Fellows (1966), M.D. (McGill), Ph.D. (Duke) Associote Professor of Physiology and Assistant Route 3. Box 67A Professor of Medicine Hillsborough, N. C. Arthur Bowles Ferguson (1939), Ph.D. (Cornell) Professor of History 22 Lebanon Circle Earl W. Ferguson (1974), Ph.D. (Texas) Apartment 15-H 2748 Middleton Street Associote in Medicine Lucy Rau Ferguson (1974), Ph.D. (California at Berkeley) Visiting Professor of Psychology 2709 McDowell Street Oliver W. Ferguson (1957), Ph.D. (Illinois) Professor of English 1212 Arnette Avenue Saleh A. Fetouh (1972), D.P.H. (North Carolina at Chapel Hill) Assistant Professor of Community Health Sciences and Associote in Rodiology 2001 Dartmouth Drive Bernard F. Fetter (1951), M.D. (Duke) Professor of Pothology 3836 Somerset Drive Gregory Fischer (1973), Ph.D. (Michigan) Assistant Professor of Policy Sciences and Psychology 1300 Oakland Avenue Peter G. Fish (1969), Ph.D. ()ohns Hopkins) Associote Professor of Political Science 1006 Urban Avenue Ronald L. Fishbaugh (1973), M.S. (Julliard) Lecturer in Music 1006 East Club Boulevard Robert L. Fisher (1974), M.D. (Colorado) Associate in Psychiatry 4116 Edenton Lane Joel L. Fleishman (1971), LL.M. (Yale) 205 Wood Circle Professor of Law Chapel Hill, N. C. William H. Fletcher (1974), Ph.D. (California at Berkeley) Assistant Professor of Anotomy 2012 Woodrow Street Anne Flowers (1972), Ed.D. (Duke) Professor of Education 2727 Spencer Street Maxine Rogers Flowers (1971), M.S. (Columbia) Associote in Psychiotric Sociol Work 128 Pinecrest Road Walter L. Floyd (1959), M.D. (Johns Hopkins) Professor of Medicine 3556 Hamstead Court Donald). Fluke (1958), Ph.D. (Yale) Professor of Zoology 2703 Sevier Street 64 Walter H. Forman (1973), M.D. (Florida) Associote in Rodiology 1610 Hollywood Street Lloyd R. Fortney (1964), Ph.D. (Wisconsin) Associate Professor of Physics 2 Scott Place Ellen Gwendolyn Fortune (1964), M.A. (Western Reserve) Professor of Nursing 5203 Shady Bluff Road Richard Forward (1971), Ph.D. (California at Santa Barbara) 414 Ann Street Assistant Professor of Zoology Beaufort, N. C. Derrell V. Foster (1974), Ph.D. (Texas) Apartment C-2 Assistant Professor of Computer Science 2105 Camellia John Alvis Fowler (1953), M.D. (Bowman Grav) Professor of Psychiotry, Assistant Professor of Pediotrics, ond Lecturer in Education 2721 Spencer Street Wallace Fowlie (1964), Ph.D. (Harvard) Apartment 17-D Jomes B. Duke Professor of Romonce Languages 2820 Chapel Hill Road Richard G. Fox (1968). Ph.D. (Michigan) Professor of Anthropology 315 Dacian Avenue 65Donald G. Frederick (1973), D.B.A. (Washington) Visiting Professor of Business Administration 2740 Montgomery Street Irwin Fridovich (1958), Ph.D. (Duke) Professor of Biochemistry 3517 Courtland Drive 66Ruth Crane Erickson Friedberg (1972), M.A. (North Carolina)

Assistant Professor of Music

3501 Hamstead Court

⁶⁴Through 6-30-74.

⁶⁵Through 8-31-74.

⁶⁶Sabbatical leave, spring 1974-75.

67Rabert O. Friedel (1970), M.D. (Duke) Associate Professor of Psychiatry and Assistant 1614 Pinecrest Road Professor of Pharmacology Ernestine Friedl (1973), Ph.D. (Calumbia) 3080 Calony Raad Prafessar af Anthrapalagy Jahn A. Friedrich (1963), Ph.D. (Michigan State) 2953 Welcame Drive Prafessar of Physical Education Thamas Eliat Frothingham (1973), M.D. (Harvard) Prafessor of Pediatrics and Professor of Cammunity 204 Chateau Raad Health Sciences 5512 Lincaln Street 68Danald L. Fry (1971), M.D. (Harvard) Bethesda, Maryland Visiting Prafessar of Physialagy James C. A. Fuchs (1974), M.D. (Johns Hapkins) Assistant Prafessor of Surgery and Associate in Clinical Pharmacalagy 3920 Daver Road Apartment 4-C Canrad C. Fulkerson (1974), M.D. (Missauri) 1600 Anderson Street Assaciote in Medicine Route 2 William J. Furbish (1954), M.S. (Wiscansin) Hillsbaraugh, N. C. Associate Professor of Geology Jane T. Gaede (1974), M.D. (Duke) P. O. Box 747 Hillsborough, N. C. Assistant Professor of Pathalagy 30 Pinehurst Road Kathlyn Anne Gaines (1973), M.S.N. (Flarida) Asheville, N. C. Assistant Clinical Prafessor of Nursing ⁶⁹Robert W. Gaines, Jr. (1973), M.D. (Duke) 4601 Pinedale Drive Assistant Prafessar of Orthapoedic Surgery Stanley A. Gall (1973), M.D. (Minnesota) Associate Professor of Obstetrics and Gynecology 3902 St. Marks Road 401 Lakeshare Lane John J. Gallagher (1974), M.D. (Georgetown) Chapel Hill, N. C. Assistant Prafessor of Medicine Jahnnie L. Gallemore, Jr. (1969), M.D. (Emory) Associate Professor of Psychiatry and Rabert Waad Jahnson Health Palicy Fellaw 2945 Friendship Road Thomas Muir Gallie, Jr. (1954-55, 1956), Ph.D. (Rice) Prafessor of Camputer Science 2740 Mantgomery Street Harry A. Gallis (1973), M.D. (Duke) Associate in Medicine and Associate in Micrabialogy and Immunolagy 4007 Hillgrand Drive John T. Garbutt (1969), M.D. (Temple) Assistant Prafessor of Medicine 3836 Churchill Circle Miguel Garci-Gamez (1973), Ph.D. (Cathalic Univ.) Assaciate Prafessar af Romance Languages 1108 Stanehedge Avenue Devendra P. Garg (1972), Ph.D. (New Yark Univ.) 324 Smith Drive Professar of Mechanical Engineering Charles David Gasswint (1972), Ph.D. (Oklahama) Associate in Medical Psychology in the Department of Psychiatry 3603 Massdale Avenue ⁷⁰Cebrun A. Gaustad (1970), Ph.D. (North Carolina at Chapel Hill) Associate in Medical Psychalagy 408 Hammand Street 71Raymond Gavins (1970), Ph.D. (Virginia) 2227 Emerson Place Assistant Professar af History Peter Gebel (1973), M.D. (Harvard) Assistant Professor of Medicine 1032 Sycamore Street Ila H. Gehman (1959), Ed.D. (Pennsylvania State) Associate Prafessor of Medical Psychology in the Department of Psychiatry, Lecturer in Psychology, and Lecturer in Education 2703 Spencer Street

2703 Spencer Street

W. Scatt Gehman, Jr. (1954), Ph.D. (Pennsylvania State)

Prafessar of Psychology in Education

⁶⁷Through 6-30-74.

⁶⁸Through 6-30-74.

⁶⁹Through 6-30-74.

⁷⁰Through 3-1-74.

⁷¹Leave of absence 1974-75.

John A. Gehweiler (1967), M.D. (Duke) Associate Professor of Radiology 3551 Hamstead Court Janet Gay Gelein (1970), M.S. (Duke) Assistant Professor of Nursing Route 7. Box 269A Matthew M. Geller (1974), M.A. (California at Berkeley) Assistant Professor of Computer Science 406 Computation Center W. Doyle Gentry (1969), Ph.D. (Florida State) Associate Professor of Medical Psychology in the Department of Psychiatry, and Lecturer in Psychology 212 Brooklane Drive Rhett Truesdale George, Jr. (1957). Ph.D. (Florida) Route 4, Box 431 Assistant Professor of Electrical Engineering Hillsborough, N. C. Nicholas G. Georgiade (1951), D.D.S., M.D. (Duke) Professor of Plastic, Maxillofaciol, and Oral Surgery 2523 Wrightwood Avenue Gerald E. Gerber (1962), Ph.D. (Northwestern) Associate Professor of English 3115 Stanford Drive Susan Gerhart (1973), Ph.D. (Carnegie-Mellon) Apartment B-12 Assistant Professor of Computer Science 3037 Carver Street Duilio Giannitrapani (1972), Ph.D. (Clark) Associote Professor of Medical Psychology in the Highland Hospital Department of Psychiatry Asheville, N. C. Daniel T. Gianturco (1966), M.D. (Buffalo) Associote Professor of Psychiatry and Assistant Professor of Community Health Sciences 2925 Friendship Road David B. Gilbert (1972), M.D. (Colorado) Associate in Medicine 3212 Pinafore Drive Terence James Gilbert (1972), M.B. (Sydney Univ., Australia) Apartment 17-C Assistant Professor of Anesthesiology 200 Seven Oaks Road Harlan Raymond Giles (1972), M.D. (Duke) Associote in Obstetrics and Gynecology 5215 Partridge Street Hal G. Gillespie (1971), M.D. (Med. Coll. of South Carolina) 204 Robin Hood Road Assistant Professor of Psychiatry Asheville, N. C. ⁷²Richard E. Gillespie (1971), B.D. (San Francisco Theological Seminary) Instructor in Historical Theology, Divinity 2106 Woodrow Street Nicholas W. Gillham (1968), Ph.D. (Harvard) Professor of Zoology 1211 Woodburn Road 73George W. Gillmor (1972), LL.B. (Boston) Assistant Professor of Law Law School Sherwood Githens, Jr. (1962), Ph.D. (North Carolina) Professor of Education 4427 Chapel Hill Road 74Carol A. Glackin (1973), M.S.N. (North Carolina at Chapel Hill) H-7 Camelot Associate in the Department of Community Health Sciences Chapel Hill, N. C. James F. Glenn (1963), M.D. (Duke) Professor of Urology 27 Oak Drive Joseph Leonard Goldner (1950), M.D. (Nebraska) Professor of Orthopoedic Surgery 602 East Forest Hills Boulevard Lowell A. Goldsmith (1973), M.D. (Downstate Med. Center, New York) Associate Professor of Medicine (Dermotology) 2932 Welcome Drive 73 West Kensington Harold R. Gollberg (1972), M.D. (Texas) Asheville, N. C. Associate in Psychiatry Geoffrey R. Golner (1974), Ph.D. (Cornell) 1816 Guess Road Assistant Professor and Research Associate in Physics Apartment 9-B Americo A. Gonzalvo (1974), M.D. (Univ. of Madrid) Assistant Professor of Pathology 600-5 LaSalle Street Apartment 10 Linda R. Gooding (1974), Ph.D. (Cornell) 1920 Bedford Street Associote in Immunology Route 7, Box 308 ⁷⁵Richard A. Goodling (1959), Ph.D. (Pennsylvania State)

Professor of Radiology

Professor of Pastoral Psychology

Jack K. Goodrich (1965), M.D. (Tennessee)

Farrington Road

2940 Welcome Drive

⁷²Through 8-31-74.

⁷³Through 1-31-74.

⁷⁴Through 7-19-74.

⁷⁵Sabbatical leave, spring 1974-75.

76Craufurd D. Goodwin (1962), Ph.D. (Duke) Professor of Economics Walter Gardy (1946), Ph.D. (North Carolina), LL.D. James B. Duke Professor of Physics John A. Garee (1959), M.D. (Duke) Professor of Radiology and Associate in Anatomy Alfred T. Gashaw (1973), Ph.D. (Wiscansin) Assistant Professor of Physics Barry M. Gaugh (1974), Ph.D. (Kings Call., Landan) Visiting Associate Professor in the Deportment of History and Research Associate in the Canadian Studies Program Henry G. Grabowski (1972), Ph.D. (Princetan) Associate Professor of Economics Daniel A. Graham (1969), Ph.D. (Duke) Associate Professor of Economics Dayle G. Graham (1970), Ph.D. (Duke) Assistant Professor of Pathology Pauline Gratz (1969), Ed.D. (Columbia) Professor of Human Ecology in Nursing Brent L. Gravatt (1973), M.S. (Duke) Visiting Assistant Professor of Naval Science Duane Green (1973), Ph.D. (Sauthern California) Assistant Professor of Medical Psychology in the Department of Psychiatry James Clifford Green (1971), M.D. (Illinais) Assistant Professor of Psychiatry Rabert Lee Green. Jr. (1960), M.D. (Hahnemann) Professor of Psychiatry Robert W. Green (1973), Ph.D. (Hawaii) Associate in Experimental Surgery Ranald C. Greene (1958), Ph.D. (California Inst. of Tech.) Associate Professor of Biochemistry Sandra B. Greene (1974), M.S.P.H. (North Carolina at Chapel Hill) Associote in Cammunity Health Sciences Jaseph C. Greenfield (1962), M.D. (Emary) Professor of Medicine and Assistant Professor of Physiology Jahn R. Gregg (1957), Ph.D. (Princetan) Professor of Zoology Rabert C. Gregg (1974), Ph.D. (Pennsylvania) Assistant Professor of Patristics and Medieval Church History of Divinity Jean Flynn Gregary (1973), M.S.W. (Connecticut) Associate in Psychiatric Social Work in the Department of Psychiatry Eugene Greuling (1948). Ph.D. (Indiana) Professor of Physics James R. Griffin, Jr. (1974), M.S. (Sauthern California) Visiting Assistant Professor of Aerospace Studies Jahn Francis Griffith (1969), M.D. (Saskatchewan Univ.) Associate Professor of Pediatrics and Assistant Professor of Medicine Jahn H. Grimes (1970), M.D. (Narthwestern) Associate Prafessor of Urology Keith Sanfard Grimson (1930-42: 1945), M.D. (Rush)

2256 Cranfard Road

2521 Perkins Raad

Route 7, Bax 223A Hills of New Hape Chapel Hill, N. C.

Apartment 15-G 1315 Marreene Road 2423 Rasewood Court Chapel Hill, N. C.

2026 Pershing Street

816 Watts Street

220 Dacian Avenue Apartment 17 2132 Bedfard Street

24 West Euclid Parkway 32 Robinhood Raad Asheville, N. C.

2300 Whitley Drive

1610 Sycamare Street

1014 Narwaad Avenue 843 Shady Lawn Raad Chapel Hill, N. C.

1212 Virginia Avenue

3702 Randalph Road

218 Vance Street Chapel Hill, N. C.

2401 Sprunt Street

2414 Perkins Raad 611-D Hibbard Drive Chapel Hill, N. C.

1415 Narth Gregsan Street

3420 Sheridan Drive

3313 Devan Road Apartment 3-D 311 Sauth LaSalle Street

> 2411 Prince Street 405 Lake Shore Lane Chapel Hill, N. C.

Professor of Surgery

Associate in Psychiatry

William Neil Grosch (1974), M.D. (Albany)

Samson R. Grass (1960), Ph.D. (Calumbia)
Professor of Genetics and Biochemistry

Herman Grassman (1971), M.D. (Calumbia)

Professor of Radiology and Professor of Pediatrics

⁷⁶Leave of absence, half-time 1974-75

Leslie Clemens Gruen (1974), Ph.D. (Univ. of Melbourne) Visiting Assistont Professor of Biochemistry 2709 Montgomery Street Kazimierz Grzybowski (1967), S.J.D. (Harvard) Professor of Political Science and Port-time Professor in the Low School 2605 University Drive Walter R. Guild (1960), Ph.D. (Yale) Professor of Biophysics 2625 McDowell Street Robert B. Gunn (1971), M.D. (Harvard) Assistant Professor of Physiology and Pharmocology 3408 Cromwell Road I. Caulie Gunnells (1962), M.D. (South Carolina) Professor of Medicine 3317 Devon Road John Gutknecht (1969), Ph.D. (North Carolina) 123 Cresent Drive Assistont Professor of Physiology Beaufort, N. C. William F. Gutknecht (1971), Ph.D. (Purdue) Apartment 83B Assistant Professor of Chemistry 3022 Chapel Hill Road Laura E. T. Gutman (1972), M.D. (Stanford) Assistant Professor of Pediotrics and Assistant Clinical Professor of Phormocology 2403 Wrightwood Avenue Robert A. Gutman (1971), M.D. (Florida) Assistont Professor of Medicine 2403 Wrightwood Avenue ⁷⁷Norman Guttman (1951), Ph.D. (Indiana) Professor of Psychology 201 West Woodridge Drive Robert L. Habig (1969), Ph.D. (Purdue) Assistant Professor of Clinical Biochemistry 722 Duluth Street Donald B. Hackel (1960), M.D. (Harvard) Professor of Pothology 4018 Bristol Road Herbert Hacker, Jr. (1965), Ph.D. (Michigan) Associote Professor of Electricol Engineering 2739 Montgomery Street Per-Otto Hagen (1970), F.H.W.C. (Watt, Edinburgh, Scotland) Associote Professor of Experimental Surgery and Adjunct Assistont Professor of Biochemistry 1129 Little Creek Road Allen S. Hall (1973), Ph.D. (Ohio State Univ.) Assistant Professor of Speech and Hearing Pothology. Apartment 22-C Deportment of Surgery 311 South LaSalle Street 78Dwight Hubert Hall (1968), Ph.D. (Purdue) Assistant Professor of Biochemistry 3816 Hillgrand Drive Hugh Marshall Hall (1952), Ph.D. (Texas) Professor of Political Science 613 Swift Avenue James E. Hall (1974), Ph.D. (California at Riverside) Assistant Professor of Physiology 28 Lebanon Circle Joanne E. Hall (1972), M.S. (Ohio State) Apartment L-6 Associote Professor of Nursing 2800 Croasdaile Drive Kenneth D. Hall (1958), M.D. (Duke) Professor of Anesthesiology 2715 Montgomery Street Louise Hall (1931), Ph.D. (Radcliffe) Box 6636 Professor of Architecture College Station William C. Hall (1970), Ph.D. (Duke) Associote Professor of Psychology and Assistant Professor of Anotomy 129 Pinecrest Road John Hamilton Hallowell (1942), Ph.D. (Princeton), Litt.D. Professor of Political Science 3606 Darwin Road Iain Hamilton (1962), B.M. (London) 40 Park Avenue, 17E New York, New York Mory Duke Biddle Professor of Music John D. Hamilton (1967), M.D. (Colorado) Assistont Professor of Medicine 3300 East Oak Drive Michael Hamilton (1971), M.P.H. (North Carolina at Chapel Hill) Associote in Community Heolth Sciences ond Clinicol Associote in Medicine 1607 Old Oxford Road Elliott Bryan Hammett (1973), M.D. (Duke) Associote in Psychiotry 3327 Hope Valley Road Charles B. Hammond (1968), M.D. (Duke)

Associate Professor of Obstetrics and Gynecology

2827 McDowell

⁷⁷Sabbatical leave, fall 1974-75.

⁷⁸Leave of absence 1974-75.

| William E. Hammond (1968), Ph.D. (Duke) Associate Professor of Community Health Sciences ond | |
|---|--|
| Assistant Professor of Biomedical Engineering | 10 Forrestdale Drive |
| 79Moo Young Han (1967), Ph.D. (Rochester) | To Forestaure Diffe |
| Associate Professor of Physics | 615 Duluth Street |
| 80Philip Handler (1939), Ph.D. (Illinois) | |
| James B. Duke Professor of Biochemistry and Nutrition | |
| Stuart Handwerger (1971). M.D. (Maryland) | 2051 5-1-1 1 1 - 1 |
| Assistont Professor of Pediotrics John Kennedy Hanks (1954), M.A. (Columbia) | 2951 Friendship Road |
| Professor of Music and Lecturer in Church Music | 1810 Glendale Avenue |
| 81]oseph D. Harbaugh (1973). LL.M. (Georgetown) | 1010 0101111011101110 |
| Associote Professor of Low | 3106 Devon Road |
| 82William R. Harlan, Jr. (1972). M.D. (Med. Coll. of Virginia) | |
| Professor of Community Health Sciences and | |
| Professor of Medicine Charles M. Harman (1961). Ph. D. (Wissensin) | 3908 St. Marks Road |
| Charles M. Harman (1961), Ph.D. (Wisconsin) Professor of Mechonical Engineering | 2620 McDowell Street |
| Merel M. Harmel (1971), M.D. (Johns Hopkins) | 2020 McDowell Street |
| Professor of Anesthesiology | 3434 Rugby Road |
| 83Ellwood Scott Harrar (1936), Ph.D. (Syracuse), Sc.D. | 0 ; |
| Jomes B. Duke Professor of Wood Science | 2228 Cranford Road |
| John M. Harrelson (1973), M.D. (Duke) | Route 1, Box 140-A |
| Assistant Professor of Orthopoedics and Associate in Pothology | Bahama, N. C. |
| Philip D. Harriman (1968), Ph.D. (California at Berkeley) Assistant Professor of Biochemistry | 2713 Stuart Drive |
| Cecil Craig Harris (1967). M.S. (Tennessee) | 27 13 Stuart Dire |
| Associate Professor of Rodiology | 2910 Welcome Drive |
| Harold Joseph Harris (1960), M.D. (Long Island Coll. of Medicine) | |
| Associote Professor of Psychiotry and Assistant | |
| Professor of Pediotrics | 2502 Wrightwood Avenue |
| Jerome Sylvan Harris (1936), M.D. (Harvard) | D 9 D 127 AA |
| J. Buren Sidbury Professor of Pediotrics ond Professor of Biochemistry | Route 2, Box 427-AA Pleasant Green Road |
| Robert H. Harris, Jr. (1974), M.D. (Med. Coll. of Georgia) | r reasant Green Road |
| Assistant Professor of Medicine | 2512 North Duke Street |
| 84Robert B. Hartford (1968), Ph.D. (Cornell) | |
| Assistant Professor of Sociology | 2729 Circle Drive |
| Carl W. Hartman (1974), M.D. (State Univ. of New York) | |
| Associate in Medicine | 2409 Sparwood Drive |
| Gerald W. Hartwig (1970). Ph.D. (Indiana) Associote Professor of History | 3324 Rolling Hill Road |
| William John Harvey (1961), M.A. (North Carolina) | 5524 Kölling Hill Kodu |
| Assistant Professor of Physical Education | 5118 Russell Road |
| George Corbin Harwell (1935), Ph.D. (Duke) | |
| Associote Professor of English | 2115 Wilson Street |
| Albert E. Hathaway (1970), M.D. (Hahnemann) | 711 Staley Drive |
| Associote in Community Heolth Sciences Clark C. Havighurst (1964), J.D. (Northwestern) | Raleigh, N. C. |
| Professor of Low and Professor of Community Health Sciences | 3610 Dover Road |
| Thomas Havrilesky (1969), Ph.D. (Illinois) | 3010 Bover Road |
| Associote Professor of Economics | 1508 Alabama Avenue |
| David Miller Hawkins (1972), M.D. (Duke) | |
| Assistant Professor of Psychiotry | Route 7, Box 195 |
| Hal K. Hawkins (1973), M.D. (Duke) | 0040 4 1 7 |
| Assistant Professor of Pothology | 2340 Anthony Drive |

⁷⁹Sabbatical leave, fall 1974-75. ⁸⁰Leave of absence 7-1-69 through 6-30-79.

⁸¹Through 8-31-74 82Through 11-30-74. 83Retired 8-31-74. 84Through 8-31-74.

Willis D. Hawley (1972), Ph.D. (California at Berkeley) Assistant Professor of Policy Sciences and Political 1917 South Lakeshore Drive Chapel Hill, N. C. Science 85William S. Hecksher (1966), Ph.D. (Hamburg) P. O. Box 6877 Benjamin N. Duke Professor of Art College Station Henry Hellmers (1965), Ph.D. (California at Berkeley) Professor of Botony and Professor of Forestry 1646 Marion Avenue Franklin G. Hempel (1973), Ph.D. (Texas) Assistant Professor of Physiology 1410 Acadia Street Robert W. Henkens (1968), Ph.D. (Yale) Associate Professor of Chemistry 2116 Pershing Street 86 James Donald Henry (1960), M.M. (Indiana) Assistant Professor of Music 311 West Delafield Street Stuart C. Henry (1959), Ph.D. (Duke) Professor of American Christianity K-1-A Duke University Apts. 87C. Ward Henson (1967), Ph.D. (Massachusetts Inst. of Tech.) Assistant Professor of Mathematics 2101 Englewood Avenue 88S. Duncan Heron, Jr. (1950), Ph.D. (North Carolina) Professor of Geology 4425 Kerley Road Frederick L. Herzog (1960), Th.D. (Princeton) Prafessor of Systemotic Theology 2936 Chapel Hill Road 89Kathryn A. Hesse (1972), M.S.N. (Duke) Assistont Professor of Nursing 2400 Alabama Avenue Donna Hewitt (1973), M.Nurs. (South Carolina) Instructor in Nursing 106 Woodridge Drive Siegfried Heyden (1966), M.D. (Univ. of Berlin) Professor of Community Health Sciences 2729 Montgomery Street Albert Heyman (1953), M.D. (Maryland) 1216 Woodburn Road Professor of Medicine Dorothy K. Heyman (1971), M.S.W. (Pennsylvania) Assistant Professor of Psychiotric Sociol Work 1216 Woodburn Road Jacqueline Hijmans (1965), M.D. (State Univ., Leiden, Holland) Assistant Professor of Medicine and Instructor Route 2. Box 427-AA in Physiology Pleasant Green Road Gale B. Hill (1967), Ph.D. (Duke) Assistant Professor of Obstetrics and Gynecology Route 1. Box 302 ond Assistont Professor of Micrabiology Robert L. Hill (1961), Ph.D. (Kansas) Jomes B. Duke Professor of Biochemistry 2510 Perkins Road Frederick R. Hine (1958), M.D. (Yale) Professor of Psychiotry 2317 Prince Street 90 Charles Hirschman (1972), Ph.D. (Wisconsin) Assistant Professor of Sociology 611 West Markham Avenue 91Richard D. Hobbet (1968), J. D. (Iowa) Professor of Law 2740 Spencer Street 92Marcus Edwin Hobbs (1935), Ph.D. (Duke) Professor of Chemistry 115 Pinecrest Road Richard Earl Hodel (1965), Ph.D. (Duke) Associote Professor of Mothemotics 2729 Circle Drive Carol Clarke Hogue (1963), M.S.N. (Duke), Ph.D. (North Carolina) Assistant Professor of Nursing and Assistant Professor of Cammunity Heolth Sciences 2913 Welcome Drive 93lrving Brinton Holley, Jr. (1947), Ph.D. (Yale)

Professor of History

2506 Wrightwood Avenue

⁸⁵Retired 8-31-74.

⁸⁶Sabbatical leave, spring 1974-75.

⁸⁷Through 8-31-74.

⁸⁸Sabbatical leave, fall 1974-75.

⁸⁹Through 6-30-74.

⁹⁹Leave of absence 1-1-74 through 8-31-75.

⁹¹Leave of absence, spring 1974-75 and sabbatical leave, fall 1975-76.

⁹²Sabbatical leave 1974-75.

⁹³Leave of absence 1974-75.

Frederic B. M. Hollyday (1956), Ph.D. (Duke) 1824 Forest Road Professor of History Edward W. Holmes (1973), M.D. (Pennsylvania) Assistant Professor of Medicine 2701 Augusta Drive Ole R. Holsti (1974), Ph.D. (Stanford) George V. Allen Professor of Politicol Science 3425 Sheridan Drive Everett Harold Hopkins (1961), A.M. (Pennsylvania), LL.D. 1520 Pinecrest Road Professor of Education Grace C. Horton (1969), B.S. (Albright) Assistant Professor of Physical Therapy 8 Greenfield Court Theresa Elizabeth Horton (1964), M.S.N.E. (Pittsburgh) Apartment 3 810 Clarendon Street Associote Professor of Nursing Jerry F. Hough (1973), Ph.D. (Harvard) 1506 Ephesus Church Road Professor of Political Science and Policy Sciences Chapel Hill, N. C. James S. House (1970), Ph.D. (Michigan) 1608 Delaware Avenue Assistant Professor of Sociology Emma J. Howard (1974), M.S. (North Carolina at Greensboro) Apartment F-10 4216 Garrett Road Instructor in Physical Education 1 Waterhouse Street 94David H. Howes (1974), Ph.D. (Harvard) Cambridge, Mass. Visiting Professor of Psychology Apartment 2-H 95Shyuan Hsia (1973), Ph.D. (Washington) 2724 Middleton Street Associote in Immunology Andrew T. Huang (1971), M.D. (Med. Coll. of National Taiwan Univ.) 223-B Route 7 Assistant Professor of Medicine William R. Hudson (1961), M.D. (Bowman Gray) 504 Compton Place Professor of Otoloryngology Alexander Hull (1962), Ph.D. (Washington) 2318 Prince Street Associote Professor of Romonce Longuoges Patricia Ann Humphrey (1972), M.P.H. (North Carolina at Chapel Hill) Apartment C-A 2303 Lednum Street Instructor in Nursing 96 Allan S. Hurlburt (1956), Ph.D. (Cornell) Professor of Education 112 Buchanan Boulevard Alfred L. Hurwitz (1974), M.D. (Harvard) Assistont Professor of Medicine 1016 Stonehedge Road Mary Martin Huse (1959), Ph.D. (Duke) Assistont Professor of Medicol Psychology in Route 7, Box 270 Deportment of Psychiotry and Lecturer in Psychology Ephesus Church Road William L. Hylander (1971), Ph.D. (Chicago) Associote Professor of Anotomy and Associote Professor of Anthropology 2806 Legion Road O. Kelly Ingram (1959), B.D. (Duke) Professor of Porish Ministry 2728 Sevier Street Ryotaro Ishizaki (1974), Ph.D. (Univ. of Tokyo) Apartment 9-F Associote in Surgery 600-5 LaSalle Street 97Roichi Itoh (1974), M.D. (Yokohama City) Apartment 6-A 802 Underwood Avenue Visiting Associote Professor of Medicine Donald C. Jackson (1973), M.B. Ch.B. (Univ. of Sheffield, England) Route 8, Box 398 Associote Professor of Rodiology Infinity Road Ethel R. Jackson (1974), B.S. (Bennett Coll.) 126 South Graham Street Associote in Community Heolth Sciences Chapel Hill, N. C. 98Gitta Wiessner Jackson (1973), M.D. (Duke) 700 Biltmore Avenue, Apt. 313 Associote in Psychiotry Asheville, N. C. Jacquelyne J. Jackson (1968), Ph.D. (Ohio) Associote Professor of Medicol Sociology in the Deportment of Psychiotry 2910 Kanewood Drive Wallace Jackson (1965), Ph.D. (Pennsylvania) Associate Professor of English 1310 Kent Street

3919 Saint Marks Road

Associote Professor of Heolth Administration

Boi Jon Jaeger (1972), Ph.D. (Duke)

⁹⁴Through 5-31-74.

⁹⁵Leave of absence 7-1-74 through 6-30-75.

⁹⁶Sabbatical leave, fall 1974-75.

⁹⁷Through 3-31-75.

⁹⁸Through 9-30-74.

John A. Jarrell, Jr. (1972), M.D. (Johns Hopkins) Assistant Professor of Anesthesiology 2924 Buckingham Road Hugo Osvaldo Jauregui (1970), Ph.D. (Duke) Assistant Professor of Pothology 5242 Summit Ridge Peter Walter Jeffs (1964), Ph.D. (Natal) Professor of Chemistry 3209 Cromwell Road Marianna Duncan Jenkins (1948), Ph.D. (Bryn Mawr) Apartment 12 2132 Bedford Street Professor of Art Bronislar de Leval Jezierski (1958), Ph.D. (Harvard) Associote Professor of Slovic Longuoges and Literatures 1011 Norwood Avenue John P. Jiminez (1965), M.D. (Med. Coll. of Virginia) Associate Professor of Rodiology 1604 Woodburn Road Frans F. Jobsis (1964), Ph.D. (Michigan) Professor of Physiology 1542 Hermitage Court 99Carl G. Jockusch, Jr. (1973), Ph.D. (Massachusetts Inst. of Tech.) Apartment 19-B Visiting Associote Professor of Mothemotics 2748 Middleton Street Frederick Charles Joerg (1947), M.B.A. (Harvard) Professor of Monogement Sciences and Professor of Forest Monogement 2424 Wrightwood Avenue 100Sheridan Waite Johns, III (1970), Ph.D. (Harvard) Associote Professor of Politicol Science 3219 Waterbury Armead H. Johnson (1974), Ph.D. (Baylor) Apartment G-3 Associote in Immunology 3600 Tremont Drive Charles Johnson (1970), M.D. (Howard) Associote Professor of Medicine 1026 Jerome Road Charles B. Johnson (1956), Ed.D. (Duke) Associote Professor of Education 2714 McDowell Street 101Dale T. Johnson (1967), Ph.D. (Vanderbilt) Associote Professor of Medicol Psychology in the 54-A Worthwood Road Deportment of Psychiotry Asheville, N. C. Edward Anthony Johnson (1963), M.D. (Univ. of Sheffield, England) 106 Ridgetrail Road Professor of Physiology and Phormocology Chapel Hill, N. C. Kurt E. Johnson (1971), Ph.D. (Yale) Assistant Professor of Anotomy 1026 Monmouth Avenue Michael L. Johnson (1973), M.D. (Colorado) Associote in Rodiology 4003 Hillgrand Drive Terry Walter Johnson, Jr. (1954), Ph.D. (Michigan) Professor of Botony 2408 Prince Street Irwin Johnsrude (1966), M.D. (Manitoba) Associote Professor of Rodiology 2702 Spencer Street William Webb Johnston (1963), M.D. (Duke) Professor of Pothology 1608 University Drive William T. Joines (1966), Ph.D. (Duke) Associote Professor of Electricol Engineering 4010 Deepwood Circle Wolfgang Karl Joklik (1968), Ph.D. (Oxford) Jomes B. Duke Professor of Microbiology and Immunology 3613 Hathaway Road Barney L. Jones (1956), Ph.D. (Duke) Professor of Religion 2622 Pickett Road Buford Jones (1962), Ph.D. (Harvard) Associote Professor of English 1106 West Knox Street 102Edward Ellsworth Jones (1953), Ph.D. (Harvard) Professor of Psychology 2738 Sevier Street James David Jones (1963), M.D. (Duke) Associote Professor of Psychiotry and Assistant Professor of Pediotrics 3851 Somerset Drive Rayford Scott Jones (1971), M.D. (Texas) Associote Professor of Surgery ond Assistant Professor of Physiology and Phormacology 3909 Regent Road James Kalat (1971), Ph.D. (Pennsylvania) 1404 Vickers Avenue Assistant Professor of Psychology

⁹⁹Through 12-31-73.

¹⁰⁰Leave of absence 1974-75.

¹⁰¹Through 10-1-74.

¹⁰²Sabbatical leave 1974-75.

Henry Kainin (1948), Ph.D. (Duke) 2417 Perkins Road Prafessor of Biachemistry William J. Kane (1974), M.D. (Temple) Assistant Professor of Community Health Sciences 5 Breton Place Henry J. Katz (1967), M.A.T. (Duke) 1118 Woodburn Road Instructor in Mothemotics Route 2, Piney Mauntain Road Samuel Lawrence Katz (1968), M.D. (Harvard) Wilbert C. Davison Professor of Pediotrics Chapel Hill, N. C. William G. Katzenmeyer (1967), Ed.D. (Duke) 2818 McDowell Street Associate Professor of Education Bernard Kaufman (1968), Ph.D. (Indiana) 2900 Arnold Road Associate Professor of Biachemistry lane S. Kaufman (1973), M.S. (Ohio State) Apartment F 3090 Colony Road Assistant Professor of Nursing Igor I. Kavass (1972). LL.B. (Univ. of Melbourne) Professor of Law 2645 Umstead Road Richard F. Kay (1973), Ph.D. (Yale) 1528 Hermitage Court Assistant Professor of Anotomy Route 4, Box 407 Charles Rush Keith (1963), M.D. (Kansas) Associate Professor of Psychiotry Chapel Hill, N. C. Thomas F. Keller (1959), Ph.D. (Michigan) R. J. Reynolds Industries Professor of Business Administration 1024 West Markham Avenue Allen Charles Kelley (1972), Ph.D. (Stanford) Professor of Economics 4607 Chicopee Trail 103William Nimmons Kelley (1968), M.D. (Emory) Professor of Medicine and Assistant Professor of Biochemistry 3500 Donnigale Avenue 104Patrick Dan Kenan (1965), M.D. (Duke) Associote Professor of Otoloryngology and Associote Professor of Community Heolth Sciences 804 Anderson Street Van Leslie Kenyon, Jr. (1945), M.M.E. (Delaware) Professor of Mechanical Engineering Hillsborough, N. C. Grace Partridge Kerby (1947), M.D. (Duke) Professor of Medicine 1108 Wells Street Alan C. Kerckhoff (1958), Ph.D. (Wisconsin) Professor of Sociology 1511 Pinecrest Road Robert B. Kerr (1965), Ph.D. (Johns Hopkins) Professor of Electrical Engineering 2220 Elmwood Avenue Marlyne Kilbey (1973), Ph.D. (Houston) Assistant Professor of Medical Psychology in the Deportment of Psychiotry 311 South LaSalle Street William D. Kilbourn (1974), LL.B. (Columbia) Visiting Professor of Low Paul Gustan Killenberg (1972), M.D. (Pennsylvania) Assistont Professor of Medicine Sung-Hou Kim (1970), Ph.D. (Pittsburgh) Associote Professar of Biachemistry 604 Starmount Drive

2529 Perkins Road 2914 Friendship Drive

Route 2

5101 Peppercorn Street

3120 Devon Road

2528 Wrightwood Avenue

4155 Deepwood Circle

103Leave of absence 9-1-74 through 6-30-75. 104Through 2-28-74.

Burton B. King (1967), M.A. (Northwestern) Associote in Audiology in the Division of Otolaryngology in the Deportment of Surgery

105 Marcel Kinsbourne (1967), M.D. (Oxford)

Ralph Gary Kirk (1970), Ph.D. (Yale) Assistant Professor of Physiology

Thomas DeArman Kinney (1960), M.D. (Duke) R. J. Reynolds Industries Professor of Medicol Education and Professor of Pothology

Neurology, and Lecturer in Psychology

Associote Prafessar of Pediotrics, Associote Professor

105Through 3-31-74.

106Warren Kirkendale (1967), Dr.Phil. (Vienna) Associote Professor of Musicology 2422 Tryon Road Mary Kirkpatrick (1973), M.Nurs. (Washington) 1103 Harvey Street Assistant Professor of Nursing Raleigh, N. C. Norman Kirshner (1956), Ph.D. (Pennsylvania State) Professor of Biochemistry and Professor of Experimental Surgery 2524 Wrightwood Avenue Paul M. Kirwin (1969), Ph.D. (Texas) Associote in Medical Psychology in the Deportment 10 Tennyson Place Joseph Andrew Kisslo (1974), M.D. (Hahnemann Med. Coll.) Associote in Medicine 3701 St. Marks Road 107 Joseph Weston Kitchen, Jr. (1962), Ph.D. (Harvard) Associate Professor of Mothemotics 1600 Delaware Avenue Joseph E. Klause (1972), M.S. (George Washington) Professor of Novol Science 5851 Sandstone Drive Dolph Klein (1974), Ph.D. (Rutgers) Associate Professor of Microbiology 120 Newell Street Fritz Klein (1973), Ph.D. (Duke) Associote in the Deportment of Anesthesiology 1008 Norwood Avenue Gordon K. Klintworth (1964), Ph.D. (Univ. of Witwatersrand, South Africa) Professor of Pothology 2718 Spencer Street Route 1, Box 184 Peter H. Klopfer (1958), Ph.D. (Yale) Professor of Zoology Tierreich Farm Route Conrad Merton Knight (1961), B.S. (Norwich) Associote in Rodiology and Associote in Community Route 2. Hudson Road Heolth Sciences Kenneth R. Knoerr (1961), Ph.D. (Yale) Professor of Forest Meteorology and Associate 1608 Woodburn Road Professor of Biometeorology Lt. Col. Frederick W. Knops, Jr. (1971), M.S. (Rensselaer Polytechnic Inst.) 7 Tarra Place Professor of Aerospoce Studies Michael Ray Knowles (1974), M.D. (North Carolina) 2710 Sarah Avenue Associote in Medicine Yi-Hong Kong (1967), M.D. (National Defense Medical Center, Taipei, Taiwan) Associote Professor of Medicine 2814 DeKalb Street 108 Anne H. Koons (1973), M.D. (Temple) Associote in Pediotrics 3 Lucerne Lane J. Mailen Kootsey (1971), Ph.D. (Brown) Adjunct Assistant Professor of Physiology 1610 Sycamore Street Allan Kornberg (1965), Ph.D. (Michigan) Professor of Political Science 23 Scott Place Wesley Kort (1965), Ph.D. (Chicago) Associote Professor of Religion 3514 Winding Way David Kraines (1970), Ph.D. (California at Berkeley) Associote Professor of Mothemotics 1720 Duke University Road 109Paul Jackson Kramer (1931), Ph.D. (Ohio State) Jomes B. Duke Professor of Botony

Colony Hill Richard Spencer Kramer (1972), M.D. (Duke) Associote in Neurosurgery 1531 Hermitage

Deborah W. Kredich (1971), M.D. (Michigan) Associote in Pediotrics 57 Kimberly Drive

Nicholas M. Kredich (1968), M.D. (Michigan) Associote Professor of Medicine ond Assistant Professor

of Biochemistry 57 Kimberly Drive

Irwin Kremen (1963), Ph.D. (Harvard)

Assistant Professor of Psychology and Assistant Professor of Medical Psychology in the Department of Psychiotry

216 Forestwood Drive

¹⁰⁶Sabbatical leave 1974-75.

¹⁰⁷Sabbatical leave, fall 1974-75.

¹⁰⁸Through 8-31-74.

¹⁰⁹Retired 8-31-74.

William B. Kremer (1966), M.D. (Upstate Med. School, New York) Associote Professor of Medicine 2802 Legion Avenue 110 Juanita M. Kreps (1955), Ph.D. (Duke) Jomes B. Duke Professor of Economics 1407 West Pettigrew Street Jonathan H. Kress (1972), B.A. (Harvard) Instructor in Anthropology 265 Psychology-Sociology 111William R. Krigbaum (1952), Ph.D. (Illinois), D.Sc. Jomes B. Duke Professor of Chemistry 2504 Wilson Street Arthur F. Kriner (1973), M.D. (Hahnemann Med. Coll.) Assistant Professor of Rodiology 4144 Deepwood Circle Apartment 3 Ronald P. Krueger (1969), M.D. (Duke) 2029 Bedford Street Assistant Professor of Pediotrics 112 Arnold D. Krugman (1964), Ph.D. (Kentucky) Associote Professor of Medical Psychology in the Deportment of Psychiotry and Lecturer in Psychology 2605 Tanglewood Drive Magnus Jan Krynski (1969), Ph.D. (Columbia) Associote Professor of Slovic Longuages and Literature 1004 West Markham Avenue Arthur J. Kuhn (1971), Ph.D. (California at Berkeley) Assistant Professor of Business Administration 1317 Norton Street LuVern H. Kunze (1973), Ph.D. (Iowa) Professor of Heoring and Speech Pothology. Deportment of Surgery 2707 Tryon Road J. Peter Kusel (1973), Ph.D. (St. Louis Univ.) Assistant Professor of Rodiology 3519 Winding Way ¹¹³Kathleen M. Kusel (1973), M.Nurs. (Washington Univ.) Instructor in Nursing 3519 Winding Way Johannes A. Kylstra (1965), Ph.D. (Univ. of Leiden) Professor of Medicine and Associate Professor of Physiology 2924 Friendship Road Weston LaBarre (1946), Ph.D. (Yale) Route 1 Jomes B. Duke Professor of Anthropology Mt. Sinai Road Leon Lack (1965), Ph.D. (Columbia) Professor of Phormocology 2936 Welcome Drive Creighton Lacy (1953), B.D., Ph.D. (Yale) Professor of World Christionity 2714 Dogwood Road 114Martin Lakin (1958), Ph.D. (Chicago) Professor of Medical Psychology in Department of Psychiotry and Professor of Psychology 2709 McDowell Street 115Celia Lamper (1971), M.S.N. (Duke) Assistant Professor of Nursing 1816 Guess Road 116Norma Landau (1972), M.A. (Toronto) Apartment 19 Instructor in History 1000 North Duke Street Richard Landeira (1970), Ph.D. (Indiana) Assistant Professor of Romance Languages 3723 Sunnyside Drive Maurice B. Landers, III (1969), M.D. (Michigan) Associote Professor of Ophtholmology 2965 Friendship Road David J. Lang (1968), M.D. (Harvard) Associate Professor of Pediatrics and Assistant Professor of Virology Route 2, Box 440 David L. Lange (1971), LL.B. (Illinois) 42-G Stratford Hills Apartments Professor of Low Chapel Hill, N. C. Thomas A. Langford (1956), B.D., Ph.D. (Duke) Professor of Systemotic Theology 2002 Dartmouth Drive Alphonse J. Langlois (1973), Ph.D. (Duke) Assistant Clinical Professor of Experimental Surgery 1720 Vista Street Charles F. Lanning (1973), M.D. (Kansas)

3903 Saint Marks Road

Assistant Professor of Anesthesiology

¹¹⁰Sabbatical leave, fall 1974-75.

¹¹¹Sabbatical leave, îall 1974-75.

¹¹²Through 7-1-74.

¹¹³Through 1-31-74.

¹¹⁴Leave of absence 1974-75.

¹¹⁵Leave extended through 8-31-75.

¹¹⁶Through 8-31-74.

Arthur Larson (1958), D.C.L. (Oxford) Professor of Law John Laszlo (1960), M.D. (Harvard) Professor of Medicine Peter Lauf (1968), M.D. (Univ. of Freiburg) Associate Professor of Physiology and Assistant Professor of Immunology Dan J. Laughhunn (1968-69; 1972), D.B.A. (Illinois) Professor of Business Administration and Management 117John V. Lavigne (1974), Ph.D. (Texas) Associate in Medical Psychology in the Department 70 Estes Park Apartments of Psychiatry August R. Lawrence (1974), M.A.T. (Duke) Instructor in Mathematics 118Bruce B. Lawrence (1971), Ph.D. (Yale) Associate Professor of Religion Dewey T. Lawson (1974), Ph.D. (Duke) Assistant Professor and Research Associate in Physics 1413 North Mangum Street Richard H. Leach (1955), Ph.D. (Princeton) Professor of Political Science and Lecturer in Education John LeBar (1965), Ed.D. (Duke) Assistant Professor of Physical Education Harold E. Lebovitz (1962), M.D. (Pittsburgh) Professor of Medicine and Assistant Professor of Physiology 119Ching-muh Lee (1972), M.D. (National Taiwan Univ.) Assistant Professor of Anesthesiology Kerry L. Lee (1974), M.S. (Stanford) Assistant Professor of Community Health Sciences Jack A. Lees (1971), Ph.D. (Chicago) Assistant Professor of Mathematics Robert J. Lefkowitz (1973), M.D. (Columbia) Assistant Professor of Medicine Jonathan P. Leis (1974), Ph.D. (Cornell) Assistant Professor of Surgery and Assistant Professor of Virology in the Department of Microbiology and Immunology John C. LeMay (1961), D.V.M. (Georgia) Professor of Laboratory Animal Services 120Warren Lerner (1961), Ph.D. (Columbia) Professor of History Richard G. Lester (1965), M.D. (Columbia) Professor of Radiology Betsy Levin (1973), LL.B. (Yale) Associate Professor of Law Alan S. Levy (1973), Ph.D. (Columbia) Assistant Professor of Psychology Nelson L. Levy (1973), Ph.D. (Duke), M.D. (Columbia)

1 Learned Place Route 1, Box 266 Cornwallis Road

3535 Hamstead Court

814 Churchill Chapel Hill, N. C.

Carrboro, N. C. 129 Forest Road Raleigh, N. C.

2702 Stuart Drive

1313 Woodburn Road

923 Demerius Street

1847 Woodburn Road

223 Argonne Drive Route 4, Rollingwood Chapel Hill, N. C.

2216 Elba Street

3539 Hamstead Court

Apartment B 229 Rippling Stream Road Route 8, Box 347 Goodwin Road

2948 Friendship Road

2703 Montgomery Avenue 510 East Rosemary Street Chapel Hill, N. C.

48-B Colonial Apartments Apartment 93-D 3022 Chapel Hill Road 1106 Willow Drive Chapel Hill, N. C. Cedar Falls Road Chapel Hill, N. C.

1708 Woodburn Road

407 Erwin Apartments

Assistant Professor of Immunology

Professor of Business Administration

¹²¹Martha Modena Lewis (1933), M.A. (Columbia) Professor of Physical Education

Harold Walter Lewis (1946), Ph.D. (Duke)

Wilbur G. Lewellen (1974), Ph.D. (Massachusetts Inst. of Tech.)

Visiting Professor of Business Administration Arie Y. Lewin (1974), Ph.D. (Carnegie-Mellon)

Professor of Physics

¹¹⁷Leave of absence 10-21-74 through 1-21-75.

¹¹⁸Leave of absence 1974-75.

¹¹⁹Through 8-9-74.

¹²⁰ Sabbatical leave 1974-75.

¹²¹Retired 8-31-74.

| Chen Fah Lian (1974), M.D. (Cambridge) Associate in Radiology | 2929 Buckingham Road |
|---|---|
| Herman I. Libshitz (1974). M D. (Hahnemann Med. Coll.) Associate Professor of Radiology | 1614 Pinecrest Road |
| Sara Lichtenstein (1974), Ph.D. (Univ. of London) | |
| Assistant Professor of Art Melvyn Lieberman (1968), Ph.D. (State Univ. of New York, I | 1011 ¹ 2 Monmouth Avenue Downstate Med. Center) |
| Associate Professor of Physiology | 1110 Woodburn Road |
| John L. Lievsay (1962), Ph.D. (Washington) James B. Duke Professor of English | 2725 Montgomery Street |
| L. Sigfred Linderoth (1965), M.S. (lowa State) Professor of Mechanical Engineering | 2220 Whitley Drive |
| John M. Lindley (1974), Ph.D. (Duke) | |
| Lecturer in History Joseph Lipscomb, Jr. (1974), B.A. (Vanderbilt) | 2610 University Drive |
| Lecturer in Policy Sciences and Economics Warren N. Lipscomb. (1974), B.S. (Texas) | 1515 Hermitage Court |
| Visiting Assistant Professor of Novol Science | 3914 Wynford Drive |
| Paul Lisowski (1974), Ph.D. (Duke) Assistont Professor and Research Associate in Physics | 110 Temple Lane |
| Charles Harris Livengood, Jr. (1946), LL.B. (Harvard) Professor of Low | 2804 Chelsea Circle |
| Daniel A. Livingstone (1956), Ph.D. (Yale) | |
| Professor of Zoology Charles E. Llewellyn, Jr. (1955), M.D. (Med. Coll. of Virginia) | 2827 Ridge Road |
| Associote Professor of Psychiotry Jane Marie Lloyd (1961), M.A. (North Carolina) | 3550 Hamstead Court |
| Assistant Professor of Physical Education | 704 Louise Circle |
| Charles H. Lochmuller (1969), Ph.D. (Fordham) Associote Professor of Chemistry | 3203 Mossdale Avenue |
| Gregory Lockhead (1965), Ph.D. (Johns Hopkins) Professor of Psychology | 101 Emerald Circle |
| Gerald L. Logue (1971-72; 1974), M.D. (Pittsburgh) | |
| Assistont Professor of Medicine Patrick E. Logue (1974), Ph.D. (North Dakota) | Box 223, Route 7 |
| Assistont Professor of Medical Psychology in the Department Psychiatry | 901 Bluestone Drive |
| Christian M. Lohner (1970), M.A. (George Washington) | |
| Visiting Assistant Professor of Aerospoce Studies Charles H. Long (1974), Ph.D. (Chicago) | 3315 Powers Lane 405 Wesley Drive |
| Professor of Religion Juanita Lee Long (1970), M.S. (North Carolina) | Chapel Hill, N. C. |
| Assistont Professor of Nursing | 216 Brook Lane |
| Thomas T. Long, III (1974), M.D. (Bowman Gray) Assistont Professor of Medicine | 508 Rippling Stream Road |
| William K. Longley (1968). Ph.D. (Univ. of London) Associote Professor of Anotomy | 47 Lebanon Circle |
| James Stavert Loos (1972), Ph.D. (Illinois) | |
| Assistant Professor of Physics Donald W. Loveland (1973), Ph.D. (New York Univ.) | 1015 Demerius Street |
| Professor of Computer Science | 3417 Cambridge Road |
| ²² Hans Lowenbach (1940), M.D. (Hamburg Univ.) Professor of Psychiotry and Assistant Professor of | Route 3, Box 273 |
| Pediotrics Richard Albert Lucas (1972). Ph.D. (North Carolina at Chapel | Old Apex Road |
| Associote in Medicol Psychology in the Deportment | 2421 Sedgefield Drive |
| of Psychiotry John G. Lundberg (1970), Ph.D. (Michigan) | Chapel Hill, N. C. |
| Assistant Professor of Zoology Barbara G. Lynds (1974). M.S. (Maryland) | 2813 McDowell Street 6513 New Market Way |
| Assistant Professor of Nursing | Raleigh, N. C. |
| | |

¹²²Retired 8-31-74.

William S. Lynn, (1954), M.D. (Columbia) Professor of Medicine and Associate Professor Route 1, Box 296-C Hillsborough, N. C. of Biochemistry George W. Lynts (1965). Ph.D. (Wisconsin) Associate Professor of Geology 10 Cotswold Place John Nelson MacDuff (1956), M.M.E. (New York Univ.) Professor of Mechanical Engineering 2733 Dogwood Road Jarlath MacKenna (1973), M.B. (National Univ. of Ireland), M.D. (Univ. Coll., Dublin) Assistant Professor of Obstetrics and Gynecology 600-1 LaSalle Street, 13-D Barry B. MacKichan (1970), Ph.D. (Stanford) Route 6, Box 262 Assistant Professor of Mathematics Chapel Hill, N. C. Kenneth Scott McCarty (1959), Ph.D. (Columbia) Professor of Biochemistry 2713 Dogwood Road David R. McClay (1973), Ph.D. (North Carolina at Chapel Hill) Assistant Professor of Zoology 3704 Tremont Drive Carole A. McCleery (1970), Ph.D. (Carnegie-Mellon) Assistant Professor of Business Administration 2101 Dartmouth Drive 123 Thomas E. McCollough (1961). Th.D. (Southern Baptist Theological Seminary) Associate Professor of Religion 2722 Circle Drive Donald E. McCollum (1962), M.D. (Bowman Gray) Professor of Orthopaedic Surgery 2207 Wilshire Drive John B. McConahay (1974), Ph.D. (California at Los Angeles) Associate Professor of Policy Sciences and Psychology 2101 Englewood Avenue 124George M. McCord. Jr. (1971). M.D. (Emory) Assistant Professor of Radiology 3211 Denise Street Joe M. McCord (1972), Ph.D. (Duke) Associate in Experimental Medicine and Associate in Biochemistry 600-A LaSalle Street Ralph C. McCoy (1973), M.D. (Emory) Assistant Professor of Pathology 3820 Pickett Road Alice L. McCrea (1961). M.S. (Chicago) Route 2, Box 20 Assistant Professor of Radiation Therapy 2911 Umstead Road 125Thomas Edward McDonnell (1971), M.A. (Fordham) Visiting Assistant Professor of Naval Science 4043 Kelly Drive James H. McElhaney (1973), Ph.D. (West Virginia) Professor of Biomedical Engineering 3411 Cambridge Marjorie B. McElroy (1970), Ph.D. (Northwestern) Route 4, Box 535 Assistant Professor of Economics Chapel Hill, N. C. Margaret A. McKean (1974), M.A. (Harvard) Apartment 30-I Assistant Professor of Political Science 2752 Middleton Street Patrick Allen McKee (1969), M.D. (Oklahoma) Associate Professor of Medicine and Assistant Professor of Biochemistry 2616 Augusta Drive John C. McKinney (1957), Ph.D. (Michigan State) Professor of Sociology and Professor of Medical Sociology in the Deportment of Psychiatry Route 8, Box 286 Bryon D. McLees (1967-69; 1971). Ph.D. (Johns Hopkins) Assistant Professor of Medicine 108 Pawnee Circle

Robert McLelland (1972), M.D. (Cincinnati)

Associate Professor of Radiology Michael E. McLeod (1966), M.D. (Duke)

Associote Professor of Medicine 4007 Deepwood Circle

126Samuel M. McMahon (1968), M.D. (Ohio State) Assistant Professor of Medicine

Thomas Joseph McManus (1961), M.D. (Boston)
Associate Professor of Physiology and Pharmacology 1408 Oakland Avenue

James O. McNamara (1973), M.D. (Michigan)

Associate in Medicine 4115 Cobblestone Andrew McPhail (1968), Ph.D. (Glasgow)

Professor of Chemistry 5305 Partridge Street

3716 St. Marks Road

5343 Yardley Terrace

¹²³Sabbatical leave, spring 1974-75.

¹²⁴Through 6-30-74.

¹²⁵Through 6-30-74.

¹²⁶Through 6-30-74.

Harry Thurman McPherson (1955), M.D. (Duke) Professor of Medicine 3915 Nottaway Road John J. McQueary (1974), B.S. (North Carolina Central Univ.) Associote in the Deportment of Community 5005 Pine Trail Drive Heolth Sciences George L. Maddox (1960), Ph.D. (Michigan State) Professor of Sociology and Professor of Medical Sociology in the Department of Psychiotry 2750 McDowell Street Wesley A. Magat (1974), M.S. (Northwestern) Assistant Professor of Business Administration Route 2. Box 474 Moses Stephen Mahaley (1965), Ph.D. (Duke) Associote Professor of Neurosurgery and Assistant Professor of Anotomy 3940 Nottaway Road Edward P. Mahoney (1965), Ph.D. (Columbia) Apartment 49 Associote Professor of Philosophy 1000 North Duke Street Steven Maier (1971), Ph.D. (Stanford) Assistant Professor of Business Administration 4401 Berini Drive 2432 Sedgefield Drive Allan Armstrong Maltbie (1974), M.D. (Emory) Associote in Psychiotry Chapel Hill, N. C. 405 Whitehead Circle Lazaro J. Mandel (1972), Ph.D. (Pennsylvania) Assistant Professor of Physiology Chapel Hill, N. C. Donald F. Mandetta (1974), M.D. (Duke) Associote in Medicine 3822 Hillgrand Drive 127Charles Edward Mann (1970), M.S. (Duke) Visiting Assistant Professor of Novol Science 3503 Winding Way Charles Milton Mansbach (1970), M.D. (New York Univ.) Assistont Professor of Medicine 2431 Tryon Road James R. Margolis (1974), M.D. (Illinois) 2439 Tilghman Circle Associote in Medicine Chapel Hill, N. C. Peter N. Marinos (1968), Ph.D. (North Carolina State) Professor of Electrical Engineering and Professor of Computer Science 9C Anderson Street Apartments Sven Maripuu (1974), Ph.D. (Goteborg, Sweden) 1603 Fountain Ridge Lecturer and Research Associate in Physics Chapel Hill, N. C. ¹²⁸Sidney David Markman (1947), Ph.D. (Columbia) Professor of Art History and Archaeology 919 Urban Avenue Ronald A. Marquis (1974), M.S. (U.S. Naval Postgraduate School) Visiting Associate Professor of Novol Science 523 Hunter Street Patricia H. Marschall (1971), LL.M. (Harvard) Route 4, Box 399 Brookridge Professor of Low Raleigh, N. C. Gail R. Marsh (1969), Ph.D. (Iowa) Assistant Professor of Medical Psychology in the Deportment of Psychiotry 1506 Southwood Place David V. Martin (1962), Ed.D. (Duke) Associote Professor of Education 1527 Hermitage Court Raymond Massengill, Jr. (1964), Ed.D. (Virginia) Associate Professor of Medical Speech Pothology Division of Plostic ond Moxillofociol Surgery 2734 Spencer Street 129 Jane S. Matthews (1971), M.P.H. (North Carolina) Assistant Professor of Physical Theropy and Assistant Professor of Community Heolth Sciences 300 Rutledge Avenue Seymour Mauskopf (1964), Ph.D. (Princeton) Associote Professor of History 700 Brighton Road David W. Maves (1972), A.Mus.D. (Michigan) Route 1, Box 260-E Assistant Professor of Music Hillsborough, N. C. 130Otto Meier, Jr. (1934), Ph.D. (Pennsylvania) Professor of Electricol Engineering 113 Pinecrest Road 131Frederick J. Meine (1973), M.D. (Temple) Assistant Professor of Radiology and Assistant Professor of Pediotrics 3837 Somerset Drive

127Through 6-30-74.

129Through 8-31-74.

¹²⁸ Sabbatical leave, spring 1974-75.

¹³⁰Sabbatical leave, fall 1974-75.

¹³¹Through 6-30-74.

Elgin W. Mellown (1965), Ph.D. (Univ. of London) Associote Professor of English 1004 Minerva Avenue Lorne Mendell (1968), Ph.D. (Massachusetts Inst. of Tech.) 1812 Rolling Road Associote Professor of Physiology Chapel Hill, N. C. Nancy Mendell (1974), Ph.D. (North Carolina at Chapel Hill) Associote in Immunology and Associate in 1812 Rolling Road Community Heolth Sciences Chapel Hill, N. C. Daniel B. Menzel (1971), Ph.D. (California at Berkeley) Associote Professor of Phormocology and Associote Professor of Experimental Medicine 932 Clarion Drive Richard S. Metzgar (1962), Ph.D. (Buffalo) Professor of Immunology 3616 Westover Road Horst Meyer (1959), Ph.D. (Zurich) Professor of Physics 2716 Montgomery Street Eric M. Meyers (1969), Ph.D. (Harvard) Associote Professor of Religion 3202 Waterbury Drive M. Victor Michalak (1950), Ph.D. (Indiana) Associote Professor of English 804 Louise Circle Don D. Mickey (1973), Ph.D. (Louisiana State) Associote in Experimentol Surgery 3318 Dixon Road Paul A. Mickey (1970), Th.D. (Princeton) Assistant Professor of Postorol Theology 1100 Woodburn Road Donald S. Miller (1969), M.D. (Harvard) Route 2, Box 482 Assistant Professor of Medicine Hillsborough, N. C. Gustavus H. Miller (1955), Ph.D. (Michigan) Bartram Drive Assistant Professor of Romance Languages Chapel Hill, N. C. Martin A. Miller (1970), Ph.D. (Chicago) Associote Professor of History 2808 Shannon Road Sara Elizabeth Miller (1973), Ph.D. (Georgia) Route 3, Box 212A Associote in Microbiology Apex, N. C. 800 Hartig Street Elliott Mills (1968), Ph.D. (Columbia) Associote Professor of Physiology Chapel Hill, N. C. Wilma A. Minniear (1964), M.S.N. (Western Reserve) Professor of Nursing and Associate Professor of Health Administration 5203 Shady Bluff Street William Thomas Earle Mishler, II (1972). Ph.D. (Duke) Assistant Professor of Political Science 3621 Cole Mill Road Thomas G. Mitchell (1974), Ph.D. (Tulane) Assistant Professor of Mycology, Department of Microbiology and Immunology 120 Newell Street Thalachallour Mohanakumar (1974), Ph.D. (Duke) Associote in Microbiology and Immunology 1802 Shelton Avenue Jesper V. Moller (1973), D.Sc. (Aarhus Univ.) Visiting Assistant Professor of Biochemistry 862 Louise Circle Gerald C. Monsman (1965), Ph.D. (Johns Hopkins) Associote Professor of English 1421 North Mangum Street ¹³²Kathryn A. Montgomery (1972), M.S. (Minnesota) Apartment 22-G Assistant Professor of Nursing 2836 Chapel Hill Road 133Byron T. Mook (1971), B.A. (Oberlin) Instructor in Politicol Science 802 Green Street John W. Moore (1961), Ph.D. (Virginia) 605 Kenmore Road Professor of Physiology Chapel Hill, N. C. Lawrence C. Moore, Jr. (1966), Ph.D. (California Inst. of Tech.) Associote Professor of Mothemotics 2104 Sprunt Street James J. Morris (1963), M.D. (State Univ. of New York) Associote Professor of Medicine 2903 Buckingham Road Brenda M. Morgan (1974), M.S. (North Carolina at Chapel Hill) L-7 Kingswood Apartments

Instructor in Nursing

Wayne J. Morse (1974), Ph.D. (Michigan State Univ.)

Associote Professor of Business Administration

Chapel Hill, N. C.

525 Colony Woods Drive Chapel Hill, N. C.

¹³²Through 12-31-73.

¹³³Through 8-31-74.

| ¹³⁴)ohn D. Moses (1970), Ph.D. (Duke) | |
|--|---|
| Instructor in Physics | 4 Ashley Road |
| Montrose J. Moses (1959), Ph.D. (Columbia) | tron:n -1 |
| Professor of Anotomy | 152 Pinecrest Road |
| Ada F. Most (1973), Ed.D. (Columbia) Associate Professor of Nursing | 3106 Ithaca Street |
| Bernard M. Most (1974), Ph.D. (Texas) | 5 Too Hilded Street |
| Assistant Professor of Mathematics | 3106 Ithaca Street |
| Earl George Mueller (1945), Ph.D. (Iowa) | |
| Professor of Art | 1516 Kent Street |
| Julia Wilkinson Mueller (1939-41; 1946), M.A. (Iowa) | |
| Professor of Music | 1516 Kent Street |
| Bruce). Muga (1967), Ph.D. (Illinois) | |
| Professor of Civil Engineering | 4110 King Charles Road |
| 135Bruce R. Munson (1970), Ph.D. (Minnesota) | 0400 5 1 1 4 |
| Assistant Professor of Mechanical Engineering | 2128 Englewood Avenue |
| Roland Murphy (1967-68; 1971), S.T.D. (Catholic Univ.) | 211 McCauley Street Chapel Hill, N. C. |
| Professor of Old Testament Francis J. Murray (1960), Ph.D. (Columbia) | Chaper Inn, N. C. |
| Professor of Mathematics | 1012 Norwood Avenue |
| William J. Murray (1972), Ph.D. (Wisconsin) | 1012 Not Wood Attende |
| Associate Professor of Anesthesiology | 135 Pinecrest Road |
| Gerard Musante (1971), Ph.D. (Tennessee) | |
| Assistant Professor of Medical Psychology in the | |
| Department of Psychiatry and Assistant Professor of | |
| Community Health Sciences | 120 Continental Drive |
| George C. Myers (1968), Ph.D. (Washington) | |
| Professor of Sociology | 12 Scott Place |
| Lawrence E. Myers (1973), Ph.D. (California at Berkeley) | 2211 Englaward Avanua |
| Assistant Professor of Mathemotics Alan M. Nadel (1974), M.D. (Pittsburgh) | 2211 Englewood Avenue |
| Associate in Medicine | 5339 Yardley Terrace |
| 136Hiroshi Nagaya (1966), M.D. (Univ. of Toyko) | 5555 Tardiey Terrace |
| Associate Clinical Professor of Medicine | 2910 Friendship Road |
| Toshio Narahashi (1962-63; 1965), Ph.D. (Univ. of Tokyo) | r |
| Professor of Physiology | 2964 Friendship Road |
| James L. Nash (1972), M.D. (Duke) | |
| Assistont Professor of Psychiatry | 2815 Welcome Drive |
| Blaine S. Nashold, Jr. (1957), M.D. (McGill) | |
| Professor of Neurosurgery | 410 East Forest Hills Boulevard |
| Sydney H. Nathans (1966), Ph.D. (Johns Hopkins) | 4007) (|
| Associate Professor of History Denothy F. Naumann (1962), M.D. (Syracuse) | 1627 Marion Avenue |
| Dorothy E. Naumann (1963), M.D. (Syracuse) Associate in Community Health Sciences | 2404 Tampa Avenue |
| Aubrey Willard Naylor (1952), Ph.D. (Chicago) | 2404 Tampa Avenue |
| James B. Duke Professor of Botany | 2430 Wrightwood Avenue |
| Thomas Herbert Naylor (1964), Ph.D. (Tulane) | Murphy School Road |
| Professor of Economics and Computer Science | Hillsborough, N. C. |
| Robert David Nebes (1973), Ph.D. (California Inst. of Tech.) | |
| Assistant Professor of Medical Psychology in the | Apartment D-2 |
| Department of Psychiatry | 3600 Tremont Drive |
| Francis A. Neelon (1969), M.D. (Harvard) | and the cold by the |
| Assistant Professor of Medicine | 2216 West Club Boulevard |
| ¹³⁷ M. Dean Nefzger (1973), Ph.D. (Iowa) Professor of Community Health Sciences | 2723 Stuart Drive |
| Glenn Robert Neglev (1946), Ph.D. (Chicago) | Apartment 10 |
| Professor of Philosophy | 2132 Bedford Drive |
| Sigrid Nelius (1973), M.D. (Munich) | 2 102 Dealord Diffe |
| Associate in Community Health Sciences | P. O. Box 3066 |

P. O. Box 3066

Associate in Community Health Sciences

¹³⁴Through 8-31-74. ¹³⁵Through 8-31-74. ¹³⁶Through 8-19-74. ¹³⁷Deceased 7-10-74.

| Danald D. Neish (1974), M.D. (Temple) | 301 Laurel Hill Road |
|--|---------------------------|
| Assistant Prafessar of Community Health Sciences | Chapel Hill, N. C. |
| 138William H. Nelson (1974), Ph.D. (Duke) | Apartment B-3 |
| Instructor and Research Associate in Physics | 3600 Tremant Drive |
| Charles W. Neville, Jr. (1964), M.D. (Vanderbilt) | 56 Waadbury Raad |
| Associate Professor of Psychiatry | Asheville, N. C. |
| Barbara Carol Newborg (1952), M.D. (Johns Hapkins) | Ashevine, iv. c. |
| Assistant Professor of Medicine | 1502 Virginia Avenue |
| | 1503 Virginia Avenue |
| Henry Winstan Newsan (1948). Ph.D. (Chicaga) | 1111 V-th Course Street |
| James B. Duke Prafessar of Physics | 1111 Narth Gregsan Street |
| Francis Newton (1967), Ph.D. (North Carolina) | 2000 I anim America |
| Prafessar of Latin | 2809 Legian Avenue |
| Jack L. Nichals (1970), Ph.D. (Alberta) | 1005 1 11 1 |
| Associate Professor of Microbiology | 1307 Arnette Avenue |
| 139William McNeal Nichalson (1935), M.D. (Johns Hapkins) | |
| Prafessar af Medicine | 824 Andersan Street |
| R. Bruce Nicklas (1965), Ph.D. (Calumbia) | _ , _ |
| Professor of Zoalagy | 3101 Camelot Court |
| Robert J. Niess (1972), Ph.D. (Minnesota) | |
| Prafessar of Ramance Languages | 2709 Spencer Street |
| Charles E. V. Nixan (1971), Ph.D. (Michigan) | |
| Assistant Professar of Classical Studies | 913 Urban Avenue |
| K. Thamas Naell (1974), M.D. (Rochester) | |
| Associate in Radialogy | 2307 Prince Street |
| 140Loren W. Nalte (1966), Ph.D. (Michigan) | |
| Professar of Electrical Engineering and Professar of | |
| Biamedical Engineering | 2708 Sevier Street |
| Jens Gregersen Narby (1974), Ph.D. (Univ. of Aarhus, Denmark) | |
| Visiting Associate Professor of Physiology | 3535 Hamstead Court |
| Charles Bryan Nartan (1971), M.D. (Duke) | Apartment 7-A |
| Assistant Professar of Psychiatry | 200 Seven Oaks Road |
| Thomas T. Norton (1972), Ph.D. (California at Los Angeles) | |
| Assistant Professor of Psychalagy and Physiolagy | 2708 Augusta Drive |
| A. Sue Narville (1966), M.S.N. (Emary) | Apartment 3-A |
| Associate Professor of Nursing | 2716 Middletan Street |
| 141David W. Navak (1970), Ph.D. (Kentucky) | |
| Assistant Prafessar of Medical Psychology in the | |
| Department of Psychiatry | 5126 Kenwaod Raad |
| Richey A. Navak (1969), Ph.D. (Jahns Hapkins) | 0120 101111000 11010 |
| Associate Professor of Germanic Languages and Literature | 3927 Swathmare Road |
| John B. Nawlin (1967), M.D. (Duke) | Apartment 1 |
| Assistant Prafessor of Cammunity Health Sciences | 2711 Bedfard Street |
| Yasuhika Nazaki (1966), Ph.D. (Univ. of Takya) | 2711 bedidid Succe |
| Associate in Biochemistry | 2810 Stuart Drive |
| | 2010 Stuart Diffe |
| Halger Olof Nygard (1960), Ph.D. (California at Berkeley) Professor of English | 4015 Cole Mill Road |
| | 326 Azalea Drive |
| Charles George Oakes (1972), Ph.D. (Emary) | |
| Assistant Professor of Community Health Sciences | Chapel Hill, N. C. |
| Jahn F. Oates (1967), Ph.D. (Yale) | 0.440 No. 1 - 1 |
| Prafessar af Classical Studies | 2416 Alpine Raad |
| William M. O'Barr (1969), Ph.D. (Northwestern) | |
| Associate Professor of Anthropology | 713 Andersan Street |
| Walter D. Obrist (1957), Ph.D. (Narthwestern) | |
| Professar of Medical Psychology in the Department of | |
| Psychiatry, Professar of Experimental Medicine | |
| (Neuralogy) in the Department of Medicine, and | |
| Lecturer in Psychalogy | 2604 McDowell Street |
| Guy Leary Odam (1943), M.D. (Tulane) | |
| James B. Duke Prafessar af Neurasurgery | 2812 Chelsea Circle |
| | |

¹³⁸Through 8-31-74. ¹³⁹Deceased 9-8-74. ¹⁴⁰Sabbatical leave 1974-75. ¹⁴¹Through 7-31-74.

142William M. O'Fallon (1965), Ph.D. (North Carolina) Associote Professor of Community Health Sciences and Glen Heights Assistant Professor of Mothemotics Chapel Hill, N. C. Fearghus T. O'Foghludha (1970), Ph.D. (National Univ. of Ireland) 1513 Pinecrest Road Professor of Rodiology Robert A. Older (1974), M.D. (Duke) Assistant Professor of Rodiology Route 1, Irongate Box 91 D4 H. Newland Oldham, Jr. (1970), M.D. (Baylor) Associote Professor of Surgery 1020 Homer Street Henry Olela (1972), Ph.D. (Florida State) Apartment D-3 2116 Front Street Assistant Professor of Block Studies Michael Oliphant (1974), M.D. (Cornell) Assistant Professor of Rodiology and Associate in 2905 Friendship Road Pediotrics 143F. Hodge O'Neal (1959), S.J.D. (Harvard) Apartment E-3 700 Morreene Road Jomes B. Duke Professor of Low Aglaia N. O'Quinn (1974), M.D. (Duke) Associote in Pediotrics 1829 Front Street Edward Stewart Orgain (1934), M.D. (Virginia) Professor of Medicine 3321 Devon Road James R. O'Rourke, Jr. (1972), M.D. (Kentucky) Associote in Community Heolth Sciences ond 405 Longleaf Drive Clinicol Associote in Medicine Chapel Hill, N. C. Robert Tappan Osborn (1954), Ph.D. (Drew) Professor of Religion 2732 McDowell Street Raymond L. Osborne, Jr. (1973), M.D. (McGill) Apartment M-17 Assistant Professor of Rodiology 2800 Croasdaile Shirley K. Osterhout (1967), M.D. (Duke) Associote in Pediotrics 5133 North Willowhaven Drive Suydam Osterhout (1959), Ph.D. (Rockefeller Inst.), M.D. (Duke) Professor of Microbiology and Professor of Medicine 5133 North Willowhaven Drive Athos Ottolenghi (1959), M.D. (Univ. of Pavia, Italy) Associote Professor of Phormocology 1510 Woodburn Street Douglas A. Outlaw (1974), Ph.D. (North Carolina State) Instructor and Research Associate in Physics 2503 West Club Boulevard Harry Ashton Owen, Jr. (1951), Ph.D. (North Carolina State) Professor of Electrical Engineering 2741 McDowell Street George Padilla (1965), Ph.D. (California at Los Angeles) Associate Professor of Physiology 2027 Bivins Street David L. Paletz (1967), Ph.D. (California at Los Angeles) Associote Professor of Political Science 1311 Carolina Avenue Aubrey Edwin Palmer (1944), B.S.C.E. (Virginia) Associate Professor of Civil Engineering 2525 Highland Avenue 144Norman D. Palmer (1974), Ph.D. (Yale) Visiting Distinguished Professor of Political Science 2720 Circle Drive Richard A. Palmer (1966), Ph.D. (Illinois) Associote Professor of Chemistry 126 Pinecrest Road Erdman B. Palmore (1967), Ph.D. (Columbia) Professor of Medical Sociology in the Department of Psychiotry and Professor of Sociology 19 Scott Place William E. Parham (1972), Ph.D. (Illinois) R. J. Reynolds Industries Professor of Chemistry 2800 De Kalb Street Harold Talbot Parker (1939), Ph.D. (Chicago) Professor of History 1005 Demerius Street Joseph B. Parker, Jr. (1970), M.D. (Tennessee) Professor of Psychiotry Colony Hill Roy T. Parker (1954), M.D. (Med. Coll. of Virginia) F. Boyard Corter Professor of Obstetrics and Gynecology 111 Pinecrest Road Harry B. Partin (1964), Ph.D. (Chicago) Associote Professor of Religion 2739 Spencer Street

¹⁴²Sabbatical leave 7-1-74 through 6-30-75.

¹⁴³Sabbatical leave, spring 1974-75.

¹⁴⁴Through 5-31-74.

Joel Francis Paschal (1954), Ph.D. (Princeton) Professor of Low 1527 Pinecrest Road George R. Parkeson, Jr. (1974), M.D. (Duke) Assistant Professor of Community Health Sciences 4040 Nottaway Road Merrill Lee Patrick (1964), Ph.D. (Carnegie Inst. of Tech.) Associate Professor of Computer Science 25 Scott Place F. M. S. Patterson (1968), M.D. (Pennsylvania) Associote Clinicol Professor of Community Heolth Apartment 3-E Sciences and Assistant Clinical Professor of Surgery 1911 Front Street Z. Daniel Pauk (1967), M.D. (Iowa) Assistant Professor of Psychiotry 1802 Woodburn Road Robert G. Paul (1970), Ph.D. (Oklahoma) Associate in Audiology and Speech Pothology in the Deportment of Surgery 3403 Rolling Hill Road David F. Paulson (1972), M.D. (Duke) Assistant Professor of Urology 3102 Doubleday Place 145Hilda I. Pavlov (1960), M.A. (Leningrad) Assistant Professor of Slovic Longuages 709 Reta Road 146Michael I. Pavlov (1960), M.A. (Leningrad) Associate Professor of Russian 709 Reta Road 408 Polk Street Bruce Payne (1972), M.A. (Yale) Lecturer in Policy Sciences Raleigh, N. C. William Bernard Peach (1951), Ph.D. (Harvard) Professor of Philosophy Route 2, Box 474 Daniel T. Peak (1969), M.D. (Wisconsin) Assistant Professor of Psychiatry 3807 Hulon Drive ¹⁴⁷George W. Pearsall (1964), Sc.D. (Massachusetts Inst. of Tech.) Professor of Mechanical Engineering 2941 Welcome Drive Talmage Lee Peele (1939), M.D. (Duke) Professor of Anotomy, Professor of Medicine (Neurology), Assistant Professor of Pediatrics, and Lecturer in Psychology KD2 University Apartments Charles Henry Peete, Jr. (1953), M.D. (Harvard) Professor of Obstetrics and Gynecology 42 Beverly Drive William P. J. Peete (1955), M.D. (Harvard) Professor of Surgery 2814 Chelsea Circle Peter Francis Pepe (1972), M.D. (Temple) 320 Glendale Drive Assistant Professor of Medicine Chapel Hill, N. C. Ronald Perkins (1969), Ph.D. (Indiana) Associate Professor of Geology 2719 Montgomery Street Edythe Mae Persing (1964), M.N. (Western Reserve) Route 2, Box 279 Chapel Hill, N. C. Assistant Professor of Nursing Walter Scott Persons (1930), A.B. (Duke) Associate Professor of Physical Education 612 Swift Avenue 148Ruth Lohmann Peschel (1971), M.D. (Berlin) Assistant Professor of Medicine 2306 Pershing Street Robert H. Peter (1967), M.D. (Duke) Associote Professor of Medicine 2710 McDowell Street 149Russell Petersen (1971), Ph.D. (Washington) Assistant Professor of Business Administration 1901 Cannon Street David W. Peterson (1973), Ph.D. (Stanford) Professor of Monogement Sciences in the Groduote School of Business Administration 1013 Monmouth Avenue Olan Lee Petty (1952), Ph.D. (Iowa) Professor of Education 2605 McDowell Street Eric A. Pfeiffer (1966), M.D. (Washington) Professor of Psychiotry 3203 Cromwell Road John Bernard Pfeiffer, Jr. (1949), M.D. (Cornell)

Professor of Medicine

3414 Rugby Road

¹⁴⁵Retired 8-31-74.

¹⁴⁶Retired 8-31-74.

¹⁴⁷Sabbatical leave, fall 1974-75,

¹⁴⁸Retired 8-31-74.

¹⁴⁹Through 8-31-74.

¹⁵⁰Leland R. Phelps (1961), Ph.D. (Ohio State) Professor of German lames Henry Phillips (1946), Ph.D. (Yale) Professor of Religion ¹⁵¹Joseph F. Phillips (1973), M.D. (Emory) Associate in Radiology Jane Philpott (1951), Ph.D. (fowa) Professor of Botany and Professor of Wood Anatomy John E. P. Pickett (1970) Associate in Pathology and Instructor in the School of Medical Technology Kenneth LeRoy Pickrell (1944), M.D. (Johns Hopkins) Professor of Plastic and Maxillotacial Surgery Orrin H. Pilkey (1965), Ph.D. (Florida State) Professor of Geology Theo Clyde Pilkington (1961), Ph.D. (Duke) Professor of Biomedical Engineering and Professor of Electricol Engineering Sheldon R. Pinnell (1973), M.D. (Yale) Associate Professor of Medicine (Dermatology) Robert A. Pittillo, Jr. (1968), Ed.D. (Duke) Associate Professor of Education William D. Poe (1971), M.D. (Bowman Gray) Assistant Professor of Community Health Sciences Jacques C. Poirier (1955), Ph.D. (Chicago) Professor of Chemistry Grace Hilford Polansky (1968), M.S.W. (Western Reserve) Assistant Professor of Psychiotric Social Work F. Stanley Porter (1964), M.D. (Johns Hopkins) Professor of Pediotrics Ned A. Porter (1969), Ph.D. (Harvard) Associote Professor of Chemistry Richard M. Portwood (1959), M.D. (Southwestern) Assistant Professor of Medicine Raymond W. Postlethwait (1955), M.D. (Duke) Professor of Surgery William H. Poteat (1960), B.D., Ph.D. (Duke) Professor of Religion and Comporative Studies Steven Garth Potkin (1974), M.D. (Washington Univ.) Associote in Psychiotry Leo Potts (1973), M.B. (Adelaide, South Australia) Assistant Professor of Psychiotry 152Lois Ann Pounds (1969), M.D. (Pittsburgh) Associate Professor of Pediatrics, Assistant Professor of Community Health Sciences, and Assistant Professor of Nursing Benjamin E. Powell (1946), Ph.D. (Chicago) Professor in the Foculty of Arts and Sciences Philip C. Pratt (1966), M.D. (Johns Hopkins) Professor of Pothology Vernon Pratt (1964), M.F.A. (San Francisco Art Inst.) Assistant Professor of Art

Richard Lionel Predmore (1950), D.M.L. (Middlebury) Jack J. Preiss (1959), Ph.D. (Michigan State) Associote Professor of Political Science ond

2255 Cranford Road

2517 Perkins Road Apartment 18-D 2748 Middleton Street

2260 Cranford Road

3323 Pinafore Drive

3 Sylvan Road Route 3, Highway 70 Hillsborough, N. C.

2932 Ridge Road

2815 Chelsea Circle

2735 Montgomery Street 406 Elliott Road Chapel Hill, N. C.

210 West Lavender Avenue

504 Watts Street

2609 Cornwallis Road

1009 Archdale Road

54 Beverly Drive

2416 Erwin Road 621 Greenwood Road Chapel Hill, N. C.

3259 Rose of Sharon Road 53 Panola Street Asheville, N. C.

4029 Nottaway Road

3609 Hathaway Road

2707 Sevier Street

1903 Glendale Avenue Route 1, Box 379-P Bahama, N. C.

2722 McDowell Street

1124 Woodburn Road

Route 4, 106 Collums Road Chapel Hill, N. C.

150Sabbatical leave 1974-75.

Policy Sciences

Professor of Sociology

Professor of Romance Longuages

Richard A. Preston (1965), Ph.D. (Yale) William K. Boyd Professor of History

David E. Price (1973), Ph.D. (Yale)

¹⁵¹Through 6-30-74.

¹⁵²Through 8-31-74.

E. Reynolds Price (1958), B.Litt. (Oxford) Box 4813 Professor of English Duke Station James Ligon Price, Jr. (1952), Ph.D. (Cambridge) Professor of Religion 2723 Circle Drive Patricia N. Prinz (1974), Ph.D. (Stanford) Adjunct Assistant Professor of Physiology 2115 Woodrow Street and Pharmacology Marcos J. Pupkin (1974), M.D. (Univ. of Chile) Assistant Professor of Obstetrics and Gynecology 4518 Cheshire Court 153A. Kenneth Pve (1966), LL.M. (Georgetown) Professor of Law 2802 Chelsea Circle Steven H. Quarfordt (1968), M.D. (New York Univ.) Associote Professor of Medicine 3300 Pinafore Drive Louis D. Quin (1957), Ph.D. (North Carolina) Professor of Chemistry 2740 McDowell Street Galen W. Quinn (1958), D.D.S. (Tennessee) Professor of Orthodontics 806 East Forest Hills Boulevard Naomi R. Quinn (1972), Ph.D. (Stanford) Assistant Professor of Anthropology 710 Overhill Terrace Jill Raitt (1973), Ph.D. (Chicago) Associate Professor of Historical Theology in the 3213 Pickett Road Divinity School R. Rajagopal (1974), Ph.D. (Michigan) Assistant Professor of Quantitative Science. Apartment E-2 Department of Forestry 2106 Front Street K. V. Rajagopalan (1966), Ph.D. (Madras) Associate Professor of Biochemistry 2214 Elmwood Avenue Charles W. Ralston (1954), Ph.D. (Duke) Professor of Forest Soils 2531 Wrightwood Avenue Dietolf Ramm (1969), Ph.D. (Duke) Assistant Professor of Computer Science and Assistant Professor of Information Sciences in Psychiatry 1609 Sycamore Street Fidel Ramon (1974), Ph.D. (Duke) Adjunct Assistant Professor of Physiology 1407 Arnette Avenue John F. Rampone (1973), M.D. (Marquette) Assistant Professor of Obstetrics and Gynecology 907 Chalice Street Dale B. J. Randall (1957), Ph.D. (Pennsylvania) Professor of English 2620 University Drive Norman B. Ratliff (1968), M.D. (Duke) Associate Professor of Pathology 2718 McDowell Street Calla Ann Raynor (1962), M.A.T. (North Carolina) Assistant Professor of Physical Education 858 Louise Circle Frank Thompson Read (1968), LL.B. (Duke) Professor of Law 5223 Partridge Street 154Kenneth James Reardon (1947), M.A. (Boston) Associate Professor of English 2511 Winton Road Lloyd F. Redick (1974), M.D. (Ohio State) Box 277C, Route 7 Lakeside Drive Professor of Anesthesiology 1631 Pleasant Plains Road 155 Ann Jacobansky Reed (1953), M.Ed. (Pittsburgh) Professor of Nursing Matthews, N. C. 156 John B. Reed (1973), M.D. (Harvard) Associate in Medicine 2518 Preston Avenue John William Reed (1970), M.D. (Bowman Gray) Assistant Professor of Ophtholmology 3212 Cromwell Road

Professor of Mathematics

Michael C. Reed (1974), Ph.D. (Stanford)

Michael K. Reedy (1969), M.D. (Washington) Associate Professor of Anatomy Apartment 106

312 North Buchanan Boulevard

2119 West Club Boulevard

¹⁵³Sabbatical leave, fall 1974-75.

¹⁵⁴Sabbatical leave, spring 1974-75.

¹⁵⁵Retired 8-31-74.

¹⁵⁶Through 6-30-74.

157Eva Oldham Reese (1971), B.S. (Duke) Associote in Ophtholmology 901 Camden Avenue Emily G. Reisner (1973), Ph.D. (Case Western Reserve) Apartment 16-E Associote in Immunology 2836 Chapel Hill Road Edmund Reiss (1967), Ph.D. (Harvard) Professor of English Route 3, Box 187 158Eugene M. Renkin (1963), Ph.D. (Harvard) Professor of Physiology 2028 Pershing Street A. W. Renuart (1961), M.D. (Duke) Associote Professor of Pediotrics 1201 Shepherd Street William A. Reppy, Jr. (1971), J. D. (Stanford) 604 Laurel Hill Road Associote Professor of Low Chapel Hill, N. C. Jacqueline A. Reynolds (1969), Ph.D. (Washington) Associate Professor of Biochemistry 1430 North Mangum Street John McFarlane Rhoads (1956), M.D. (Temple) Professor of Psychiotry and Lecturer in Postorol Core in Divinity School 2404 Prince Street Reed P. Rice (1965), M.D. (Indiana) 800 Cedar Falls Road Professor of Rodiology Chapel Hill, N. C. Willy E. Rice (1974), Ph.D. (North Carolina) 204-D Bolinwood Apartments Instructor in Sociology Chapel Hill, N. C. David C. Richardson (1969), Ph.D. (Massachusetts Inst. of Tech.) Assistont Professor of Biochemistry 213 Medical Sciences I Jane Shelby Richardson (1970), M.A.T. (Harvard) 213 Medical Sciences I Associote in Anotomy Lawrence Richardson, Jr. (1966), Ph.D. (Yale) Professor of Latin in the Deportment of Clossicol Studies 1103 North Gregson Street McMurry S. Richey (1954), B.D., Ph.D. (Duke) Professor of Theology and Christian Nurture 2725 Dogwood Road Dwight G. Rickel (1974), Ph.D. (Arizona) Instructor and Research Associate in Physics 4712 High Meadow Road 160Daniel H. Riddick (1973), Ph.D. (Duke) Assistant Professor of Obstetrics and Gynecology ond Assistont Professor of Physiology 911 West Markham Avenue John D. Riebel (1962), M.A. (Duke) 60 Oakwood Drive Assistant Professor of Physical Education Chapel Hill, N. C. Eberhard Karl Riedel (1971), Dr. Rer. Nat. (Technische Univ., Munich) Associote Professor of Physics 10081/2 Gloria Avenue Kent J. Rigsby (1971), M.A. (Univ. of Toronto) Assistant Professor of Classical Studies 1006 Minerva Avenue Dana Phelps Ripley (1959), Ph.D (North Carolina) Associote Professor of Romonce Longuages 1303 Dollar Avenue 161Charles S. Rivers, Jr. (1972), B.A. (Rice) Visiting Assistant Professor of Novol Science 3122 Alabama Avenue N. Russell Roberson (1963), Ph.D. (Johns Hopkins) Professor of Physics 3406 Ogburn Court George W. Roberts (1971), Ph.D. (Cambridge) Apartment 23-I Associote Professor of Philosophy 200 Seven Oaks Road Jesse Earl Roberts, Jr. (1968), M.D. (Louisiana State) Assistant Professor of Medicine and Assistant Professor of Community Heolth Sciences 21 Stoneridge Circle J. David Robertson (1966), M.D. (Harvard), Ph.D. (Massachusetts Inst. of Tech.) Professor of Anotomy 32 Oak Drive Arvin E. Robinson (1971), M.D. (Med. Coll. of Virginia) Associote Professor of Rodiology 1712 Woodburn Road 162Charles K. Robinson (1961), Ph.D. (Duke) Associote Professor of Philosophical Theology 126 Emerald Circle 163David W. Robinson (1971), M.D. (Michigan) Associote in Psychiotry 2802 Friendship Circle

¹⁵⁷Retired 7-31-74

¹⁵⁸Through 7-31-74

¹⁶⁰Through 6-30-74

¹⁶¹Through 6-30-74

¹⁶²Sabbatical leave, fall 1974-75.

¹⁶³Through 7-7-74.

George M. Robinson (1971), Ph.D. (Chicago) Assistant Professor of Psychology 2431 Alpine Road Hugh G. Robinson (1964), Ph.D. (Duke) Professor of Physics 2749 McDowell Street Roscoe R. Robinson (1962), M.D. (Oklahoma) Professor of Medicine 3929 Nottaway Road William James Kenneth Rockwell (1968), M.D. (Duke) Assistant Professor of Psychiotry 3519 Donnigale Street Charles R. Roe (1969), M.D. (Duke) Assistant Professor of Pediotrics 1409 Colewood Drive Robert Rolf (1971), M.A. (Hawaii) Apartment L-10 Instructor in Joponese-Chinese History 4216 Garrett Road Theodore Ropp (1938), Ph.D. (Harvard) Professor of History 302 East Woodridge Drive Robert A. Rosati (1971), M.D. (Duke) Assistant Professor of Medicine and Associate in Community Heolth Sciences 3615 Randolph Road Gerald M. Rosen (1972), Ph.D. (Clarkson Coll. of Tech.) 403 Knob Court Assistant Professor of Phormacology Chapel Hill, N. C. Lawrence Rosen (1974), J.D., Ph.D. (Chicago) Associote Professor of Anthropology and Adjunct 142 Lake Ellen Drive Associote Professor of Low Chapel Hill, N. C. Myron Rosenthal (1971), Ph.D. (Duke) Assistant Professor of Physiology 4514 Regis Avenue Allen David Roses (1970), M.D. (Pennsylvania) 2801 Shoreham Street Assistant Professor of Medicine David). Ross (1972), M.A. (Michigan) Apartment 5 Assistant Professor of Philosophy 2401 West Club Boulevard Norman F. Ross (1937), D.D.S. (Temple) Associote Professor of Dentistry 2811 Chelsea Circle 164Wendell F. Rosse (1966), M.D. (Chicago) Route 7, Box 223 Professor of Medicine and Associate Professor of Immunology Timberly Drive Susan Roth (1973), Ph.D. (Northwestern) Assistant Professor of Psychology 2124 Sprunt Street Malcolm H. Rourk (1971), M.D. (Pennsylvania) Assistant Professor of Pediatrics 808 Wells Street Donald Francis Roy (1950), Ph.D. (Chicago) Professor of Sociology 604 North Gregson Street John Jesse Rudin, II (1945), Ph.D. (Northwestern) Associote Professor of Christian Communications 1640 Marion Street Ralph Wayne Rundles (1945), Ph.D. (Cornell), M.D. (Duke) Professor of Medicine 3608 Westover Road Clyde de Loache Ryals (1973), Ph.D. (Pennsylvania) Professor of English 1620 University Drive David Coston Sabiston, Jr. (1964), M.D. (Johns Hopkins) Jomes B. Duke Professor of Surgery 1528 Pinecrest Road Highland Hospital Anne E. Sagburg (1956), M.D. (Onslow) Asheville, N. C. Associote in Psychiatry Harvey). Sage (1964). Ph.D. (Yale) Associate Professor of Biochemistry and Associate 2960 Welcome Drive Professor of Immunology Lester M. Salamon (1973), Ph.D. (Harvard) Assistant Professor of Political Science and Policy 3503 Mossdale Avenue Eva J. Salber (1971), M.D. (Univ. of Cape Town Med. School, South Africa) 1308 Arboretum Drive Professor of Community Heolth Sciences Chapel Hill, N. C. Herman Salinger (1955), Ph.D. (Yale) Professor of Germonic Languages and Comporative Literoture 3444 Rugby Road

Assistant Professor of Economics

165)ay S. Salkin (1969), Ph.D. (Northwestern)

165Through 8-31-74.

9 Oak Dale Drive

Hillsborough, N. C.

¹⁶⁴Leave of absence 7-1-74 through 12-31-74.

| Herbert A. Saltzman (1958), M.D. (Philadelphia) | |
|--|---|
| Professor of Medicine | 2728 McDowell Street |
| John Salzano (1958), Ph.D. (Iowa State) Associote Professor of Physiology | 409 Clarion Drive |
| Aaron P. Sanders (1956), Ph.D. (North Carolina) | Route 1, Box 119-G2 |
| Professor of Rodiology and Assistant Professor of Physiology | Bahama, N. C. |
| ¹⁶⁶ David Sanford (1970), Ph.D. (Cornell) | |
| Associate Professor of Philosophy | 2227 Cranford Road |
| Eugenia Curtis Saville (1947), M.A. (Columbia) | 1102 A . d |
| Associote Professor of Music Lloyd Blackstone Saville (1946), Ph.D. (Columbia) | 1103 Anderson Street |
| Professor of Economics | 1103 Anderson Street |
| Saul M. Schanberg (1967), Ph.D. (Yale) | 1100 Milderson Bucci |
| Professor of Phormocology and Assistant Professor of Neurology | 1604 Pinecrest |
| Louis L. Scharf (1974), Ph.D. (Washington) | Apartment D-3 |
| Visiting Associate Professor of Electrical Engineering | 901 Chalk Level Road |
| Katherine N. Schenk (1972), Ed.D. (Florida) | 4200 V 101 1 |
| Associate Professor of Nursing | 1300 Kent Street |
| Harold Schiffman (1963), Ph.D. (Princeton) Professor of Psychology | 18 Heath Place |
| Susan S. Schiffman (1972), Ph.D. (Duke) | 10 Heath 7 lace |
| Assistant Professor of Medical Psychology in the | |
| Deportment of Psychiotry | 18 Heath Place |
| Marvin A. Schilder (1973), B.B.A. (City Coll. of New York) | |
| Assistont Professor of Community Heolth Sciences | 3920 Saint Marks Road |
| Margaret C. Schmidt (1974), M.A. (Louisville) | Apartment 14-F |
| Associate in Pothology Vinut Schmidt Nielson (1952), Ph. D. (Consultance) | 200 Seven Oaks Road |
| Knut Schmidt-Nielsen (1952), Ph.D. (Copenhagen) Jomes B. Duke Professor of Physiology in the | |
| Deportment of Zoology | c/o Zoology Department |
| Eugene S. Schneller (1972), B.A. (C.W. Post College) | ero zoorogy zopar mont |
| Assistant Professor of Community Health Sciences and | Apartment 20-C |
| Assistant Professor of Sociology | 2836 Chapel Hill Road |
| David W. Schomberg (1968), Ph.D. (Purdue) | |
| Associote Professor of Obstetrics ond Gynecology ond | D 4 4 D - 2014 |
| Assistont Professor of Physiology James Morse Schooler. Jr. (1970), Ph.D. (Wisconsin) | Route 1, Box 304A |
| Assistant Professor of Physiology | 410 Pekoe Avenue |
| ¹⁶⁷ Charles H. Scoggin (1973), M.D. (Colorado) | 4 to 7 ckoc Avenue |
| Associate in Medicine | 2033 Granville Circle |
| Anne Firor Scott (1961), Ph.D. (Radcliffe) | 1028 Highland Woods |
| Professor of History | Chapel Hill, N. C. |
| David William Scott (1971), Ph.D. (Yale) | anna III' fi li Di |
| Associate Professor of Immunology Jean A. Scott (1974), Ph.D. (Harvard) | 3203 Winfield Drive |
| Assistant Professor of History | Apartment I-28 2752 Middleton Street |
| William Evans Scott (1958), Ph.D. (Yale) | 2752 Mildureton Surect |
| Professor of History | 1311 Dollar Avenue |
| Richard A. Scoville (1961), Ph.D. (Yale) | |
| Associote Professor of Mothemotics | 2114 Sprunt Street |
| Daniel C. Scullin, Jr. (1974), M.D. (Ohio State) | |
| Associate in Medicine | 2518 Preston Avenue |
| Judy Harrington Seaber (1969), B.A. (Emory) Associote in Ophtholmology | Richmond Downs Hillsborough, N. C. |
| Will Camp Sealy (1946), M.D. (Emory) | Hillsborough, N. C. |
| Professor of Thorocic Surgery | 2232 Cranford Road |
| Richard B. Searles (1965), Ph.D. (California at Berkeley) | |
| Associote Professor of Botony | 1800 Woodburn Road |
| Hilliard Foster Seigler (1967), M.D. (North Carolina) | |
| Associote Professor of Surgery and Associote Professor | |
| of Immunology | 4006 King Charles Road |

 $^{^{166}\}mbox{Sabbatical leave}$ 1974-75. $^{167}\mbox{Leave}$ of absence 7-1-74 through 6-30-75.

James Hustead Semans (1953), M.D. (Johns Hopkins) Professor of Urology 1415 Bivins Street Donald Serafin (1974), M.D. (Duke) Assistant Professor of Plastic and Moxillofacial Surgery in the Department of Surgery 2315 Anthony Drive Gerald A. Serwer (1974), M.D. (Duke) Associate in Pediotrics 3805 Hillgrand Avenue Stuart M. Sessoms (1968), M.D. (Med. Coll. of Virginia) Professor of Medicine and Professor of Health Administration 3432 Dover Road Catherine M. Severns (1971), Certificate in Nursing (Yale) Apartment 12 Associate in the Deportment of Community Health Sciences 2117 Bedford Street John D. Shelburne (1973), Ph.D. (Duke) Assistant Professor of Pathology 4302 Malvern Road Marion L. Shepard (1967), Ph.D. (Iowa State) Associate Professor of Mechanical Engineering 3421 Pinafore Drive M. Bruce Shields (1974), M.D. (Oklahoma Univ.) Associate in Ophthalmology 1619 Kirkwood Drive Melvin G. Shimm (1953), LL.B. (Yale) Professor of Law 2429 Wrightwood Avenue Kitty Shimoni (1974), M.D. (Univ. of Zurich) 609 Tinkerbell Chapel Hill, N. C. Associate in Community Health Sciences William Warner Shingleton (1947), M.D. (Bowman Gray) Professor of Surgery 3866 Somerset Drive Joseph Robert Shoenfield (1952), Ph.D. (Michigan) Apartment 2-G Professor of Mothematics 311 LaSalle Street Romesh Kumar Shonek (1970), M.A. (Punjab Univ.) Lecturer in Hindi-Urdu 5602 Greenbay Drive William Derek Shows (1967), Ph.D. (Duke) Assistant Professor of Medical Psychology in the 310 South West Street Department of Psychiotry, Lecturer in Psychology, and Lecturer in Religion Cary, N. C. R. Baird Shuman (1962), Ph.D. (Pennsylvania) Professor of Education 3708 Lykan Parkway James B. Sidbury (1961), M.D. (Columbia) Professor of Pediotrics 4044 Nottaway Road Brij B. Shrivastav (1974), Ph.D. (Western, Ontario, Canada) Adjunct Assistant Professor of Physiology and Phormacology 846 Louise Circle Lewis Siegel (1968), Ph.D. (Johns Hopkins) Associate Professor of Biochemistry 3006 Glendale Avenue Ilene C. Siegler (1974), Ph.D. (Syracuse) Associate in Medical Psychology in the Deportment of Psychiatry 2527 Wrightwood Avenue Herbert O. Sieker (1955), M.D. (Washington) Professor of Medicine 3949 Plymouth Road 168Bernard Silberman (1967), Ph.D. (Michigan) Professor of History 21 Heath Place Harold R. Silberman (1962), M.D. (Washington) Associate Professor of Medicine 2718 Princeton Drive Donald Silver (1964), M.D. (Duke) Professor of Surgery and Associate Professor of Pediatrics 3826 Regent Road George Addison Silver, III (1946), M.D. (Duke) Associate Professor of Psychiatry 3910 Dover Road Sidney A. Simon (1974), Ph.D. (Northwestern) Associate in Physiology and Pharmacology 1617 Pinecrest Drive Ida Harper Simpson (1959), Ph.D. (North Carolina) 604 Brookview Road Associote Professor of Sociology Chapel Hill, N. C. Kathleen J. Simpson (1970), M.S. (North Carolina at Chapel Hill) Instructor in Physical Education 2614 Legion Avenue Leroy C. Skinner (1959), M.A. (Maryland) Associate Professor of Physical Education 416 Argonne Drive

¹⁶⁸Sabbatical leave 1974-75.

| ¹⁶⁹ Jay S. Skyler (1972), M.D. (Jefferson Med. Coll.) Associote in Medicine ond Associote in Community Heolth Sciences | Apartment B-15 1829 Front Street |
|---|--|
| Theodore A. Slotkin (1971), Ph.D. (Rochester) Assistant Professor of Phormocology | 604 Duluth |
| Carol Ann Smith (1974), Ph.D. (Stanford) Assistont Professor of Anthropology | 1702 Vista Street |
| Constance Smith (1973), M.Nurs. (Washington) Assistont Professor of Nursing | Apartment E-16 1829 Front Street |
| David Alexander Smith (1962), Ph.D. (Yale) Associote Professor of Mothemotics | 2032 West Club Boulevard |
| Dwight Moody Smith, Jr. (1965), Ph.D. (Yale) Professor of New Testoment Interpretation | 2728 Spencer Street |
| Donald S. Smith, II (1961), M.H.A. (Minnesota) Assistant Professor of Hospitol Administration | 4167 Deepwood Circle |
| Grover C. Smith (1952), Ph.D. (Columbia) Professor of English | 215 West Woodridge Drive |
| Harmon L. Smith (1959), Ph.D. (Duke) Professor of Morol Theology in the Divinity School ond | 210 West Woodings Billo |
| Professor of Community Heolth Sciences James B. Smith, Jr. (1969), M.M. (Union Theological Seminary) | 3510 Randolph Road |
| Lecturer in Music Joel Smith (1958), Ph.D. (Northwestern) | 2500 Glendale Avenue |
| Professor of Sociology L. P. Smith (1967), M.S. (Massachusetts Inst. of Tech.) | 4 Støneridge Circle |
| Instructor in Mothemotics | 3505 Rugby Road |
| Peter Smith (1959), Ph.D. (Cambridge) Professor of Chemistry Polytic (1979), Ph.D. (Calarada) | 2711 Circle Drive |
| Ralph E. Smith (1970), Ph.D. (Colorado) Associote Professor of Virology in the Deportment of | 1410 D 1 Cil- |
| Microbiology ond Immunology Thomas Allan Smith (1970), M.D. (Vanderbilt) | 4146 Deepwood Circle 25 Glendale Road |
| Associote in Psychiotry Wade K. Smith (1972), M.D. (Johns Hopkins) | Asheville, N. C. |
| Associote in Immunology ond Associote in Medicine Wirt W. Smith (1957), M.D. (Texas) | 922 Urban Avenue |
| Associote Professor of Experimentol Surgery Frank M. Smullin (1972), M.F.A. (Queens Coll.) | 3301 Surrey Road |
| Instructor in Art Ralph Snyderman (1971), M.D. (State Univ. of New York) | 918 Green Street |
| Associote Professor of Medicine ond Assistont Professor of Immunology | 2600 Princeton Avenue |
| George C. Somjen (1963), M.D. (Amsterdam) Professor of Physiology ond Lecturer in the Deportment | |
| of Psychology Joachim R. Sommer (1957), M.D. (Munich) | 6509 Hunters Lane |
| Professor of Pothology Madison S. Spach (1958), M.D. (Duke) | 2724 Sevier Street |
| Professor of Pediatrics ond Associote Professor of Physiology | 2632 McDowell Street |
| Dorothy Spangler (1954), M.A. (North Carolina) Associote Professor of Physical Educotion | 2729 Brown Avenue |
| Bertel M. Sparks (1966), S.J.D. (Michigan) Professor of Low | 1707 Woodburn Road |
| Alexander Spock (1962), M.D. (Maryland) Associote Professor of Pediotrics | 515 Duluth |
| ¹⁷⁰ George H. Spooner (1965), Ph.D. (North Carolina) Assistant Professor of Pothology | P. O. Box 2181 Chapel Hill, N. C. |
| Thomas Spragens (1968), Ph.D. (Duke) Assistont Professor of Political Science | 227 Forestwood Drive |
| Olaf Stackelberg (1963), Ph.D. (Minnesota) Associote Professor of Mothematics | 2101 West Club Boulevard |
| | |

¹⁶⁹Leave of absence 7-1-73 through 6-30-75. ¹⁷⁰Through 2-15-74.

John Staddon (1967), Ph.D. (Harvard) Professor of Psychology 2719 McDowell Street Nancy H. Stafford (1973), B.S. (Indiana) Flint Ridge, Apartment 102 Associote in Physicol Theropy Hillsborough, N. C. 171William J. Stambaugh (1961), Ph.D. (Yale) Professor of Forest Pothology 3211 Sherbon Drive D. Keith Stanley, Jr. (1961), Ph.D. (Johns Hopkins) Associote Professor of Clossicol Studies Box 171, Mount Sinai Road Charles Frank Starmer (1966), Ph.D. (North Carolina) Associote Professor of Computer Science and Assistant Professor of Medicine (Computer Science) 1702 Glendale Avenue W. K. Stars (1966), M.A. (North Carolina) Assistant Professor of Art 1916 Glendale Avenue Eugene Anson Stead, Jr. (1947), M.D. (Emory) Florence McAlister Professor of Medicine 2122 Campus Drive David M. Steegar (1971), M.A. (Ohio State) Instructor in Romonce Longuoges 5401 Old Well Street Charlotte Stefanics (1974), M.S. (Ohio State) Apartment R-5 Instructor in Nursing 2808 Croasdaile Drive leff H. Steinert (1973) 3327 Providence Road Lecturer in Heolth Administration Charlotte, N. C. Howard Mark Steinman (1972), Ph.D. (Yale) Apartment 1 Associote in Biochemistry 501 Dupont Circle David C. Steinmetz (1971), Th.D. (Harvard) Associote Professor of Church History and Doctrine 2517 Wrightwood Avenue Apartment 3-E Henry R. Stern (1968), Ph.D. (Northwestern) 311 South LaSalle Street Assistant Professor of Germon Philip Robert Stewart (1972), Ph.D. (Yale) 522 Wofford Road Associote Professor of Romonce Longuoges Delford L. Stickel (1962), M.D. (Duke) Professor of Surgery 3108 Devon Road 172Otto George Stolz (1972), J.D. (Virginia) Route 1, Box 249, St. Mary's Road Professor of Low Hillsborough, N. C. Deborah Ann Stone (1974), B.A. (Michigan) Lecturer in Policy Sciences and Political Science 224 West Trinity Avenue Donald E. Stone (1963), Ph.D. (California at Berkeley) Professor of Botony 2706 Spencer Street Virginia Stone (1966), Ph.D. (North Carolina) Apartment A-3 Professor of Nursing 1829 Front Street Woodhall Stopford (1973), M.D. (Harvard) Associote in Community Heolth Sciences Box 316-A, Route 1 Kenneth B. Storey (1974), Ph.D. (British Columbia) Apartment E-8 Assistant Professor of Zoology 3600 Tremont Drive Boyd R. Strain (1969), Ph.D. (California at Los Angeles) Associote Professor of Botony 2610 Oberlin Road Victor H. Strandberg (1966), M.D. (Brown) Associote Professor of English 2709 Augusta Drive Harold C. Strauss (1972), M.D. (McGill) Assistant Professor of Medicine and Assistant Clinical Professor of Phormocology 2921 Buckingham Road Timothy Lee Strickler (1973), Ph.D. (Chicago) Assistont Professor of Anotomy 2911 Sparger Road Howard A. Strobel (1948), Ph.D. (Brown) Professor of Chemistry 1119 Woodburn Road Richard G. Stuelke (1972), M.D. (Iowa) Assistant Professor of Community Health Sciences

¹⁷³Henry L. Sublett, Jr. (1962), Ed.D. (Virginia) Associote Professor of Education

174William D. Sudduth (1970), M.S.W. (Minnesota) Associote in Psychiotric Sociol Work

Pickens Building

2710 Montgomery Street

2512 North Duke Street

¹⁷¹Sabbatical leave, fall 1974-75.

¹⁷²Leave of absence 1974-75.

¹⁷³Through 8-31-74.

¹⁷⁴Through 3-1-74.

Arthur L. Sallivan (1974), Ph.D. (Cornell) Assistant Professor of Regional Lond Use Planning in Box 9, Roate 3 Hillsborough, N. C. James Bolling Sallivan (1970), Ph.D. (Texas) 200 Craven Street Assistant Professor of Biochemistry Beaufort, N. C. John L. Sullivan (1973), M.D. (Johns Hopkins) Apartment L-5 901 Chalk Level Road Assistant Professor of Psychiatry Robert J. Sullivan, Jr. (1974), M.D. (Cornell) Assistant Professor of Community Health Sciences 306 Highview Drive ond Assistant Professor of Medicine Chapel Hill, N. C. Elizabeth Read Sunderland (1939-42; 1943), Ph.D. (Radcliffe) 6416 College Station Professor of Art John P. Satherland (1969), Ph.D. (California at Berkeley) 412 Ann Street Assistant Professor of Zoology Beagfort, N. C. Robert H. Svenson (1973), M.D. (Chicago) Associote in the Department of Medicine 1021 Chalk Level Louis Earl Swanson (1949), A.B. (Hamline) Associote Professor of Hospital Administration 2418 Wrightwood Avenue Charles Ford Sydnor (1972), M.D. (Virginia) Assistant Professor of Ophtholmology 3222 Oxford Drive 175 John Sykes (1968), Ph.D. (Birmingham) Assistant Professor of Physics 2312 Huron Street Ingeborg Hildebrand Talton (1968), M.D. (Med. School, Giessen, Germany) Assistant Professor of Anesthesiology 2406 Tampa Avenue Charles Tanford (1960), Ph.D. (Princeton) Jomes B. Dake Professor of Physical Biochemistry 1430 North Mangum Street Robert Earl Taylor (1974), Ph.D. (North Carolina at Chapel Hill) 105 Yorktown Drive Assistant Professor of Basiness Administration Chapel Hill, N. C. John TePaske (1967), Ph.D. (Duke) Professor of History 15 Heath Place Marcel Tetel (1960), Ph.D. (Wisconsin) Professor of Romonce Longaoges 1804 Woodburn Road ¹⁷⁶Larry W. Thompson (1961), Ph.D. (Florida State) Professor of Medical Psychology in the Department 3408 Hope Valley Road of Psychiotry and Lecturer in Psychology 177Lawrence K. Thompson, III (1969), M.D. (Duke) Assistant Professor of Plostic Sargery 3606 Wateredge Drive Thomas T. Thompson (1970), M.D. (Med. Coll. of Virginia) Assistant Professor of Rodiology and Assistant Professor of Community Health Sciences 3412 Ogburn Coart William M. Thompson (1974), M.D. (Pennsylvania) Associote in Rodiology 3920 Hope Valley Road ¹⁷⁸Frederick L. Thurstone (1967), Ph.D. (North Carolina State) Professor of Electrical Engineering and Professor of Biomedical Engineering 2532 Sevier Street 179]ames S. Tiedeman (1974), Ph.D. (Dake) Instructor in Physics and Research Associate 18-I Valley Terrace Apartments John Philip Tindall (1966), M.D. (Duke) Associote Professor of Demotology 4039 King Charles Road Frank Tirro (1973), Ph.D. (Chicago) Associote Professor of Masic 3816 Pickett Road Edward A. Tiryakian (1965), Ph.D. (Harvard) Professor of Sociology 1523 Hermitage Court C. Craig Tisher (1969), M.D. (Washington Univ.) Associote Professor of Medicine ond Associote Professor of Pothology 3825 Nottaway Road Bert R. Titus (1961), C.P.O. Associote Professor of Orthotics and Prosthetics 225 West Woodridge Drive

¹⁷⁵Through 8-31-74.

¹⁷⁶Through 10-1-74

¹⁷⁷Through 5-6-74

¹⁷⁸Sabbatical leave 1974-75.

¹⁷⁹Through 6-30-74.

H. Dennis Tolley (1974). Ph.D. (North Carolina) Assistant Professor of Community Health Sciences 405 Watts Street Russell F. Tomlinson (1962), Ph.D. (Florida) Assistant Professor of Medical Psychology in the 401 Holly Lane Deportment of Psychiotry Chapel Hill, N. C. Daniel C. Tosteson (1961), M.D. (Harvard) Jomes B. Duke Professor of Physiology 818 Anderson Street Magdalena B. Tosteson (1974), Licenciada (Buenos Aires) Research Associate and Adjunct Assistant Professor of Physiology 818 Anderson Street Ara Y. Tourian (1969), M.D. (lowa) Associote Professor of Medicine 1018 Demerius Edward Tower (1974), Ph.D. (Harvard) Associote Professor of Economics 706 East Forest Hills Boulevard V. G. Treml (1967), Ph.D. (North Carolina) 603 Long Leaf Drive Chapel Hill, N. C. Professor of Economics Richard J. Trilling (1970), Ph.D. (Wisconsin) 1400 Welcome Circle Assistant Professor of Political Science 180)ames Nardin Truesdale (1930), Ph.D. (Duke) Professor of Greek 105 Pinecrest Road Paul C. Tucek (1974), D.V.M. (Illinois) 1908 Overland Drive Associote in Pothology Chapel Hill, N. C. Vance Tucker (1964), Ph.D. (California at Los Angeles) Professor of Zoology 3507 Eastis Drive Arlin Turner (1953), Ph.D. (Texas) Jomes B. Duke Professor of English 1115 Woodburn Road Mary Neville Turner (1971), M.S.N. (Yale) Apartment B-11 Assistant Professor of Nursing 1829 Front Street Richard Lovejoy Tuthill (1953), Ed.D. (Columbia) Professor of Economic Geography 2709 Dogwood Road Malcolm P. Tyor (1955), M.D. (Duke) Professor of Medicine 810 East Forest Hills Boulevard Lee Tyrey (1970), Ph.D. (Illinois) Assistant Professor of Obstetrics and Gynecology ond Assistant Professor of Anotomy 3306 Rolling Hills Raymond U (1967), Ph.D. (Kyoto Univ.) Assistant Professor of Rodiology 3916 Linden Terrace Luella Jane Uhrhane (1947), M.P.H. (North Carolina) Associote Professor of Heolth Education 2712 Circle Drive Bruno J. Urban (1972), M.D. (Univ. of Cologne, Germany) Associote Professor of Anesthesiology 5414 Beaumont Drive James R. Urbaniak (1969), M.D. (Duke) Associote Professor of Orthopoedics 3918 Dover Road Senol Utku (1970), Sc.D. (Massachusetts Inst. of Tech.) Apartment 10 Professor of Civil Engineering 2201 Morehead Avenue ¹⁸¹Arturo Valenzuela (1970), Ph.D. (Columbia) 1706 Shawnee Street Assistont Professor of Political Science William W. Van Alstyne (1964), LL.B. (Stanford) Williom R. Perkins Professor of Low 1702 Woodburn Road Thomas C. Vanaman (1970), Ph.D. (Duke) Associote Professor of Microbiology 1007 Minerva Avenue James H. Vander Weide (1972), Ph.D. (Northwestern) Assistant Professor of Monogement Sciences 1010 Demerius Street Vartan Vartanian (1961), M.D. (Cluj Univ., Rumania) Professor of Anesthesiology 1533 Hermitage Court James W. Vaupel (1972), Ph.D. (Harvard) Assistant Professor of Policy Sciences and Public Affairs 2215 West Club Boulevard ond Assistont Professor of Business Administration

Professor of Economics

¹⁸²John M. Vernon (1966), Ph.D. (Massachusetts Inst. of Tech.)

1001 Gloria Avenue

¹⁸⁰Retired 8-31-74.

¹⁸¹Leave of absence, fall 1974-75.

¹⁸² Sabbatical leave 1974-75.

Adriaan Verwoerdt (1962), M.D. (Amsterdam) Professor of Psychiotry 2747 Sevier Street Aleksandar S. Vesic (1964), D.Sc. (Belgrade) J. A. Jones Professor of Civil Engineering 1722 Duke University Road P. Aarne Vesilind (1970), Ph.D. (North Carolina) 416 Highview Drive Associote Professor of Civil Engineering Chapel Hill, N. C. Elia E. Villaneuva (1969), M.A. (Duke) Route 7 Pope Road-Cornwallis Road Associote Professor of Physical Therapy ¹⁸³Patrick R. Vincent (1954), Ph.D. (Johns Hopkins) Associate Professor of Romonce Longuoges 1635 Marion Avenue 184Leon Visser (1974), Ph.D. (Harvard) University of Natal Visiting Assistont Professor of Biochemistry Republic of South Africa F. Stephen Vogel (1961), M.D. (Western Reserve) Route 1, Box 307-1 Professor of Pothology Murphy School Road 185Steven Vogel (1966), Ph.D. (Harvard) Associate Professor of Zoology 1212 Woodburn Road Michael R. Volvow (1972), M.D. (Seton Hall Coll. of Med.) Apartment 3-B Associote in Psychiotry 200 Seven Oaks Road Olaf T. von Ramm (1974), Ph.D. (Duke) Assistant Professor of Medicine and Assistant 120 West Seeman Street Professor of Biomedical Engineering ¹⁸⁶Howard Wachtel (1968), Ph.D. (New York Univ.) Associote Professor of Biomedicol Engineering and Assistant Professor of Physiology 3212 Sherbon Drive Joseph A. C. Wadsworth (1965), M.D. (Duke) Professor of Ophtholmology 1532 Pinecrest Road John P. Waggoner, Jr. (1957), B.D. (Duke), B.S. in L.S. (North Carolina) Associate Professor in the Foculty of Arts and Sciences ond Associote Librorion 2812 Devon Road Galen Strohm Wagner (1970), M.D. (Duke) Assistant Professor of Medicine 3415 Cromwell Road Joseph Lawrence Wagner (1972), D.V.M. (Ohio State) Assistant Professor of Microbiology and Immunology Route 7, Box 61 Linda C. Wagner (1972), M.S.N. (North Carolina) 4-C Towne House Apartments Instructor in Nursing Chapel Hill, N. C. Stephen A. Wainwright (1964), Ph.D. (California at Berkeley) Associote Professor of Zoology 3812 Dover Road William D. Walker (1971), Ph.D. (Cornell) Professor of Physics 1024 Gloria Avenue Andrew G. Wallace (1964), M.D. (Duke) Wolter Kempner Professor of Medicine ond Assistant Professor of Physiology 3413 Rugby Road T. Dudley Wallace (1974), Ph.D. (Chicago) Professor of Economics 2425 Wrightwood Avenue Michael A. Wallach (1962-72; 1973), Ph.D. (Harvard) Professor of Psychology 14 Heath Place Abe Walston, II (1969), M.D., LL.B. (Duke) Assistant Professor of Medicine 622 Starmount Drive Richard L. Walter (1962), Ph.D. (Notre Dame) Professor of Physics 1614 Woodburn Road Hsioh Shan Wang (1965), M.B. (National Taiwan Univ. Med. Coll.) Associate Professor of Psychiatry 2832 McDowell Street ¹⁸⁷Paul P. Wang (1968), Ph.D. (Ohio State) Associote Professor of Electricol Engineering 2709 Montgomery Street Calvin Lucian Ward (1952), Ph.D. (Texas) Associote Professor of Zoology 1726 Duke University Road Frances Ward (1969), Ph.D. (Brown) Associote Professor of Microbiology and Immunology ond Assistant Professor of Experimental Surgery 424 Carolina Circle

¹⁸³Sabbatical leave, spring 1974-75.

¹⁸⁴Through 6-30-74.

¹⁸⁵ Sabbatical leave, spring 1974-75.

¹⁸⁶Sabbatical leave 1974-75.

¹⁸⁷Sabbatical leave 1974-75.

Bruce W. Wardropper (1962), Ph.D. (Pennsylvania) William H. Wannamaker Prafessar of Ramance Languages 3443 Rugby Road Dennis Warner (1973), Ph.D. (Stanford) Assistant Professor of Civil Engineering 2739 Montgomery Street Seth L. Warner (1955), Ph.D. (Harvard) Prafessor of Mathematics 2433 Wrightwaad Avenue ¹⁸⁸Alvin C. Warren, Jr. (1973), J.D. (Chicago) 1726 Allard Road Assaciate Professor of Law Chapel Hill, N. C. J. B. Watkins (1974), A.B. (Duke) Visiting Assistant Prafessar of Naval Science 117 Landsbury Drive Richard Lyness Watson, Jr. (1939), Ph.D. (Yale) Professar of History 109 Pinecrest Road 189Robert Andrew Waugh (1972), M.D. (Pennsylvania) Assistant Prafessar of Medicine 1016 Stonehedge Avenue Robert E. Webster (1970), Ph.D. (Duke) Associate Prafessar of Biachemistry 3720 Saint Marks Road Andrew S. Wechsler (1974), M.D. (New York, Downstate Med. Center) Assistant Prafessar of Surgery 1110 Sandlewood Drive John C. Weed, Jr. (1973), M.D. (Tulane) Assistant Professor of Obstetrics and Gynecology 4023 Deepwaad Circle Benjamin F. Weeks (1972), M.S. (Clemson) Visiting Assistant Prafessor of Aerospace Studies 1719 Euclid Road John L. Weinerth (1974), M.D. (Harvard) Assistant Prafessar of Uralagy 1610 Peace Street E. Roy Weintraub (1970), Ph.D. (Pennsylvania) Associate Prafessar of Economics 1601 Hermitage Court Morris Weisfeld (1967), Ph.D. (Yale) Apartment 4 Professar of Mathematics 2100 House Avenue John C. Weistart (1969), J.D. (Duke) Professar of Law 3818 Darby Road Henry Weitz (1950), Ed.D. (Rutgers) Prafessor of Education 2716 Circle Drive Richard L. Wells (1962), Ph.D. (Indiana) Prafessar of Chemistry 3421 Cromwell Road Samuel A. Wells, Jr. (1970), M.D. (Emory) Associate Professar of Surgery and Assistant Prafessor 2501 Wrightwood of Immunology Paul Welsh (1948), Ph.D. (Cornell) Professar of Philasaphy 2749 Dogwood Road Martha L. Wertz (1960), M.S.W. (Tulane) Assistant Professar of Psychiotric Sociol Work 2717 Augusta Drive John H. Westerhoff, III (1974), Ed.D. (Calumbia) Associote Professar of Religion and Education 3510 Racine Street Jaseph Cable Wetherby (1947), M.A. (Wayne) Assaciate Professor of English 2604 Sevier Street Robert Whalen (1961), M.D. (Cornell) Prafessar of Medicine 3509 Westquer Road Alan D. Whanger (1970), M.D. (Duke) Assaciate Prafessor of Psychiatry 3316 Dixon Road Moody D. Wharam, Jr. (1974), M.D. (Virginia) Assistant Prafessar of Radiology 519 Marshall Way Rabert W. Wheat (1958), Ph.D. (Washington) Prafessar of Micrabialogy and Assistant Prafessar af Biachemistry 2720 Mantgamery Street Jahn K. Whisnant, Jr. (1974), M.D. (Bawman Gray) Apartment 13-C Associate in Pediatrics 600-1 LaSalle Street

Fred M. White (1959), M.F. (Duke)
Assistont Prafessor of Silviculture

Charles W. White (1970), Ph.D. (Stanford) Assistant Prafessar of Psychology

2514 Nation Avenue

3323 Rolling Hills Road

¹⁸⁸Leave of absence 1974-75.

¹⁸⁹Leave of absence 7-1-74 through 6-30-76.

Richard Alan White (1963), Ph.D. (Michigan) 309-1A, Route 1 Professor of Botany Hillsborough, N. C. ¹⁹⁰Suzanne White (1970), M.A. (California at Los Angeles) Apartment K2B Instructor in Physical Education 1500 Duke University Road Willamay Whitner (1969), Ed.D. (Columbia) Route 7 122 Landsbury Drive Professor of Nursing 1504 Cumberland Road Frances K. Widmann (1971), M.D. (Western Reserve) Associate Professor in Pothology Chapel Hill, N. C. Richard Herbert Wiebe (1972), M.D. (Saskatchewan) Apartment D Assistant Professor of Obstetrics and Gynecology 3090 Colony Road Henry M. Wilbur (1973), Ph.D. (Michigan) Assistant Professor of Zoology 2708 Sevier Street ¹⁹¹Karl Milton Wilbur (1946), Ph.D. (Pennsylvania) Apartment 48-A Jomes B. Duke Professor of Zoology 3022 Chapel Hill Road Robert L. Wilbur (1957), Ph.D. (Michigan) Professor of Botany 2613 Stuart Drive Pelham Wilder, Jr. (1949). Ph.D. (Harvard) Professor of Chemistry and Professor of Pharmocology in the Deportment of Physiology and Pharmocology 2514 Wrightwood Avenue Catherine M. Wilfert (1969), M.D. (Harvard) Associote Professor of Pediotrics ond Assistant Route 2, Piney Mountain Road Professor of Virology Chapel Hill, N. C. Robert H. Wilkinson (1967), M.D. (Washington Univ.) Associote Professor of Rodiology 3519 Courtland Drive 192William E. Wilkinson (1967), Ph.D. (North Carolina) 2013 North Lakeshore Drive Assistant Professor of Mothemotics Chapel Hill, N. C. Hilda Pope Willett (1948), Ph.D. (Duke) 901 Wakestone Circle Professor of Bocteriology Raleigh, N. C. George Walton Williams (1957), Ph.D. (Virginia) Professor of English 6 Sylvan Road Redford Brown Williams, Jr. (1972), M.D. (Yale) Assistant Professor of Psychiatry and Assistant Holly Hills Apartments 15-C Professor of Medicine 2748 Middleton Street William Hailey Willis (1963), Ph.D. (Yale) Professor of Greek in the Deportment of Clossicol Studies 1007 Vickers Avenue James F. Wilson (1967), Ph.D. (Ohio State) Associote Professor of Civil Engineering 1109 Archdale Road James W. Wilson (1969), Ph.D. (Kentucky) Assistant Professor of Pothology 2711 Oberlin Drive 193 John Wilson (1968), D.Phil. (Oxford) Associote Professor of Sociology 3130 Pickett Road Robert L. Wilson (1970), Ph.D. (Northwestern) Research Professor of Church and Society 237 Monticello Avenue Ruby L. Wilson (1959-70; 1971), Ed.D. (Duke) Professor of Nursing and Assistant Professor of Community Heolth Sciences 2436 Tryon Road Thomas G. Wilson (1959), Sc.D. (Harvard) Professor of Electrical Engineering 2721 Sevier Street Wilkie A. Wilson, Jr. (1974), Ph.D. (Duke) Associote in Physiology 2403 West Club Boulevard William P. Wilson (1961), M.D. (Duke) Professor of Psychiotry 1209 Virginia Avenue Cliff W. Wing, Jr. (1965), Ph.D. (Tulane) Professor of Psychology 2722 Spencer Street Orval Wintermute (1958), Ph.D. (Johns Hopkins) Associote Professor of Religion and Lecturer in

1103 North Duke Street

5101 Lundy Drive

Raleigh, N. C.

190Leave of absence 1974-75.

Dwyane A. Wise (1974), Ph.D. (Florida State Univ.)

Temporory Instructor in Zoology

Old Testoment

¹⁹¹Sabbatical leave, spring 1974-75.

¹⁹²Through 8-31-74.

¹⁹³Sabbatical leave, spring 1974-75.

Loren Ralph Withers (1949), M.S. (Julliard) Professor of Music 2741 Dogwood Road Ronald G. Witt (1971). Ph.D. (Harvard) 173 West Margaret Lane Associate Professor of History Hillsborough, N. C. Benjamin Wittels (1961). M.D. (Minnesota) Professor of Pathology 2308 Prince Street Myron L. Wolbarsht (1968), Ph.D. (Johns Hopkins) Clinical Professor of Ophthalmology, Adjunct Professor of Physiology, Adjunct Professor of Biomedical Engineering, and Lecturer in Psychology 1435 Acadia Street Walter G. Wolfe (1972), M.D. (Temple) Assistant Prafessor of Surgery 3824 Hillgrand 194 A. Donald Wolff (1973), M.D. (North Carolina at Chapel Hill) Route 7, Box 169 Assistant Professor of Radiology Raleigh, N. C. 195 Kai Tak Wong (1971). Ph.D. (Illinois) Assistant Professor of Mathematics 2610 Duke Homestead Road Max Atkin Woodbury (1966), Ph.D. (Michigan) Professor of Biomathematics in Community Health Sciences and Professor of Computer Science 4008 Bristol Road 196 Barnes Woodhall (1937-43; 1945), M.D. (Johns Hopkins) James B. Duke Professor of Neurosurgery 4006 Dover Road Nancy F. Woods (1972), M.S.N. (Washington) Assistant Professor of Nursing 1320 Clermont Drive A. Lorraine Woodyard (1954), M.Ed. (North Carolina at Greensboro) Associate Professor of Physical Education 880 Louise Circle Boyd T. Worde (1958). M.D. (Tennessee) Associate Professor of Radiology 2512 Sevier Street Joseph B. Workman (1971), M.D. (Maryland) Associate Professor of Radiology 219 Country Club Road Julia Ann Hedgepeth Wray (1955), M.F.A. (North Carolina at Greensboro) Assistant Professor of Physical Education 911 Carver Street Donald Wright (1967), Ph.D. (Purdue) Associate Professor of Mechanical Engineering 5428 Highland Drive James E. Wuenscher (1970), Ph.D. (Wisconsin) Route 1, Box 273-B Assistant Professor of Forest Ecology Timberlake, N. C. James B. Wyngaarden (1956-65; 1967), M.D. (Michigan) Hanes Professor of Medicine 3902 Regent Road Linda C. Wyrick (1972), Ph.D. (Arizona) Assistant Professor of Medical Psychology in the 839 Shady Lawn Drive Department of Psychiatry Chapel Hill, N. C. Allen M. Wyse (1974), Ph.D. (Illinois) Apartment E-9 Assistant Professor of Economics 1829 Front Street William S. Yamanashi (1973). Ph.D. (Massachusetts Inst. of Tech.) Ophthalmology Dept. Assistant Professor of Ophtholmology P. O. Box 3802 David O. Yandle (1967), Ph.D. (North Carolina State) Associate Professor of Forest Mathematics 2612 McDowell Street William E. Yarger (1971), M.D. (Baylor) Assistant Professor of Medicine and Assistant Professor of Physiology and Pharmacology 3406 Cambridge Road Apartment 1-K Karen Yoder (1974), M.N. (Emory) Instructor in Nursing 1315 Morreene Road William P. Yohe (1958). Ph.D. (Michigan) Professor of Economics 3412 Rolling Hill Road 197Charles R. Young (1954), Ph.D. (Cornell) Professor of History 2929 Welcome Drive Franklin W. Young (1968), Ph.D. (Duke) Amos R. Keorns Professor of New Testament and Patristic Studies 132 Pinecrest Road 198Helen Rose Young (1957), M.S. (William & Mary) Assistant Professor of Nursing 5400 Newhall Road

¹⁹⁴Through 12-31-73.

¹⁹⁵Through 8-31-74.

¹⁹⁶Retired 8-31-74.

¹⁹⁷Sabbatical leave 1974-75.

¹⁹⁸Through 8-31-74.

W. Glenn Young, Jr. (1954), M.D. (Duke) 3718 Eton Road Professor of Surgery John G. Younger (1974), Ph.D. (Cincinnati) Assistont Professor of Clossicol Studies 710 Parker Street Julie H. Zalkind (1973), Ph.D. (Johns Hopkins) Assistant Professor of Monogement Sciences in the Groduote School of Business Administration 3918 Wynford Drive William W. K. Zung (1966), M.D. (Texas) Professor of Psychiotry 1816 Woodburn Road Jamie Zusman (1974), M.D. (Johns Hopkins) Apartment 17 Assistant Professor of Pediotrics 2117 Bedford Street Peter Zwadyk, Jr. (1971), Ph.D. (Iowa) Assistant Professor of Pothology and Assistant Professor of Microbiology 4729 Stafford Drive Hendrick J. Zweerink (1970), Ph.D. (Cornell) Associote Professor of Virology in the Deportment of 2309 Prince Street Microbiology and Immunology

Adjunct Faculty and Part-Time Instructional Staff*

Paul Wesley Aitken (1964), Th.M. (Duke) Choploin and Port-time Assistant Professor of Clinical Postoral Education 2909 Harriman Drive Marcelin Amaya (1966), M.D. (Nacional Automona de Mexico) Assistant Professor of Psychiatry (port-time) 2928 Friendship Road Wayne Amick (1973), A.B. (East Carolina) Artist Associote in Music 915 Exum Street Phillip B. Anderson (1974), M.A. (Tennessee) Apartment 7-B 2818 Erwin Road Groduote Tutor in English Andrew J. Angyal (1974), M.A. (Yale) Groduote Tutor in English 935 Lambeth Circle Toni C. Bambara (1974), M.A. (City Coll. of New York) 1556 Mayflower Avenue, S.W. Visiting Professor (port-time) of Block Studies Atlanta, Georgia Jean Scott Barr (1969), M.S. (Case Western Reserve) Assistant Professor of Physical Therapy (port-time) 121 Whitfield Road Guy A. Battle, III (1974), M.S. (Murray State) Apartment A-2 700 Morreene Road Port-time Instructor in Mothemotics Mark A. Bebensee (1973), M.A. (Duke) Apartment 50 1000 North Duke Street Port-time Instructor in Economics Elizabeth J. Bellamy (1973), M.A. (Duke) Groduote Tutor in English 911 Lambeth Circle Richard E. Berkley (1973), Ph.D. (Alberta) Port-time Instructor and Research Associate in Chemistry 922 Green Street John A. Berning, Jr. (1974), M.A. (Duke) Port-time Instructor in Mothemotics 1014 Broad Street George M. Blakeslee (1974), M.F. (Duke) Temporory Instructor (port-time) in Forestry 130 Wilkins Drive Ronald Bleier (1973), M.A. (Brooklyn) Groduote Tutor in English Box 1010, Graduate Center Andree K. Blumstein (1974), Ph.D. (Yale) Part-time Instructor in Germonic Longuoges and 2410 Wrightwood Avenue James F. Blumstein (1974), LL.B. (Yale) 2410 Wrightwood Avenue Visiting Associote Professor of Policy Sciences and Low Gregory Boudreaux (1972), Ph.D. (Duke) Port-time Visiting Assistant Professor of Philosophy 1902 Shelton Avenue James R. Bowser (1974), B.S. (Clarion State Coll.) Port-time Instructor in Chemistry 219 Graduate Center

Snow Hill Road

Anthony M. Brannon (1974), LL.B. (North Carolina at Chapel Hill) Adjunct Professor of Policy Sciences (part-time)

^{*}See also Medical School, page 66.

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P. O. Box 501 Walter D. DeVries (1973), Ph.D. (Michigan State) Wrightsville Beach, N. C. Adjunct Associote Professor of Policy Sciences 1705 Allard Road Alice E. Dietz (1970), M.P.H. (North Carolina at Chapel Hill) Chapel Hill, N. C. Assistant Professor of Nursing (part-time) Harriet Dishman (1973), B.A. (Arizona State) Part-time Instructor in Germanic Languages and Literatures 1212 Clarendon Street Apartment 5-I Virginia J. Dix (1974), M.A. (Duke) Groduate Tutor in English 311 South LaSalle Street Robert J. Drye, Jr. (1972), Ph.D. (North Carolina at Chapel Hill) 1017 Winwood Drive Adjunct Assistant Professor of Civil Engineering Cary, N. C. George R. Dubay (1974), B.S. (Fairfield) Part-time Instructor in Chemistry 1919 Morehead Avenue Norman A. Dunbar (1974), B.D. (Saint Vladimir's Orthodox Theol. Seminary) Groduote Assistont in The Divinity School Graduate Center Box 173 Thomas G. Dzubay (1969), Ph.D. (Minnesota) Adjunct Assistont Professor of Physics 222 Woodridge Drive Claudia Erdberg (1973), M.M. (Manhattan School of Music) Apartment 21 Artist Associote in Music 1920 Bedford Street 221 West Park Drive Edward W. Erickson (1974), Ph.D. (Vanderbilt) Adjunct Professor of Policy Sciences Raleigh, N. C. Frances Evans (1973), M.M. (North Carolina at Chapel Hill) Stoff Associote in Music 1020 Demerius Street Sara M. Evans (1974), M.A. (Duke) 45 Davie Circle Chapel Hill, N. C. Port-time Instructor in History Joseph James Falcone (1971), B.A. (Duke) Port-time Instructor in Physical Education 1402 Woodburn Road Route 1, Box 53 James T. Faucette (1974), B.A. (Wake Forest) Bahama, N. C. Preceptor in Religion Barbara Fecteau (1973), B.M.E. (Indiana) Route 2, Box 179A Rougemont, N. C. Stoff Associote in Music Route 2, Box 179A Richard Fecteau (1973), B.M. (Indiana) Stoff Associote in Music Rougemont, N. C. William K. Finley (1973), M.A. (Kentucky) Apartment 19-H Groduote Tutor in English 2836 Chapel Hill Road Albert F. Fisher (1974), M.Div. (Duke) Adjunct Associote Professor of the Work of the Rurol Church in the Divinity School 211 Monticello Avenue Roger H. Ford (1973), M.A. (Duke) Apartment J3C Groduote Tutor in English 1500 Duke University Road Dorothy Frasure (1967), M.A. (West Virginia) Apartment B-14 Port-time Instructor in Romance Longuoges 1829 Front Street Edwin R. Garrison (1972), B.D. (Drew Theological Seminary) Apartment 18-E Visiting Consultont in The Divinity School 1315 Morreene Road Beverly Gaventa (1974), M.Div. (Union Theological Seminary) Apartment N3A Groduote Assistant in The Divinity School 1500 Duke University Road Howard B. Gelt (1973), J.D. (Denver) Port-time Instructor in Low 3803 Hillgrand Drive Robert G. Ghirardelli (1962), Ph.D. (California Inst. of Tech.) Adjunct Associote Professor of Chemistry 1404 Anderson Street Paul A. Gibb (1974), M.A. (Columbia) Groduote Tutor in English 1927 Ward Street Roy A. Gilchrist (1968), M.P.H. (North Carolina) Apartment 6-D Port-time Instructor in Physical Education 1808 Chapel Hill Road)ames Gilmore (1973), M.A. ()ulliard) Artist Associote in Music 1900 House Avenue Clifford D. Goalstone (1974), B.A. (Duke) Apartment 9 Port-time Instructor in Economics 922 Dacian Avenue Robert Goldman (1974), M.A. (Duke) Apartment 5-E 624 LaSalle Street Port-time Instructor in Sociology Lawrence C. Goodwyn (1971), Ph.D. (Texas) Adjunct Assistont Professor of History 3712 Lyckan Parkway Steven C. Grant (1974), B.S.S. (Cornell) Preceptor in Politicol Science 809 Wilkerson Avenue Valerie Greenberg (1971), M.A. (Duke) Route 5, Box 98 Port-time Instructor in Germonic Longuoges and Literatures Chapel Hill, N. C.

Cynthia L. Grissom (1974), M.A. (Duke) Craduote Tutor in English 875 Louise Circle William D. Gudger (1974), Ph.D. (Yale) Apartment 2 Stoff Associote in Music 907 Lancaster Apartment 18-I Floyd B. Gulick (1972), M.M. (Eastman School of Music) Staff Associate in Music 1315 Morreene Road Jeffrey Gunsburg (1973), Ph.D. (Duke) Apartment 2-E Lecturer (port-time) in History 1711 Lakewood Avenue Huston D. Hallahan (1972), M.A. (Duke) Croduote Tutor in English 305 Monk Road Andrew E. Hamilton (1974), B.A. (Louisiana State) Part-time Instructor in Anthropology 522 Green Street Ruth N. Hamilton (1974), B.A. (Louisiana State) Part-time Instructor in Anthropology 522 Green Street George Lea Harper, Jr. (1973), B.A. (Yale) Croduote Assistant in The Divinity School 3562 Pineview Circle Stephen D. Haslam (1974), M.A. (Utah) Part-time Instructor in Romance Languages 520 Morreene Road Pierce Hayward (1972), M.S. (North Carolina) Port-time Instructor in Civil Engineering 608 Starmont Drive Milton S. Heath, Jr. (1973), LL.B. (Columbia) 213 North Boundary Street Adjunct Professor of Environmental Low (part-time) Chapel Hill, N. C. Dan L. Hendricks (1974), M.Div. (Duke) Croduote Assistont in The Divinity School 1408 Rosedale Avenue John Henes (1974) 2410 Drexall Street Artist Associote in Music Jerry S. Herbert (1971), A.M. (Duke) Preceptor in Political Science 2710 West Main Street Scott Herman-Giddens (1970) 12 Cobb Terrace Port-time Lecturer in Computer Science Chapel Hill, N. C. David C. Hester (1971), M.Div. (Bangor Theological Seminary) Croduote Assistont in New Testoment Greek in The Divinity School 3204 Sherbon Drive Thomas Furman Hewitt (1974), Th.D. (Southern Baptist Theological Seminary) Croduote Assistant in The Divinity School and Port-time Instructor in Religion 106 Woodridge Drive Margaret J. Hodel (1970), Ph.D. (Duke) Port-time Instructor in Mothemotics 2729 Circle Drive Charles S. Hodges, Jr. (1963), Ph.D. (Georgia) 2012 Nancy Ann Drive Adjunct Associote Professor of Forest Pothology Raleigh, N. C. Steven K. Hoffman (1973), M.A. (Duke) Croduote Tutor in English 2211 Rada Drive Apartment B-213 Crale D. Hopkins (1972), M.A. (California at Los Angeles) Croduote Tutor in English 1106 Douglas Street Frances Huemer (1974), Ph.D. (New York) 37 Rogerson Drive Visiting Professor (port-time) in Art Chapel Hill, N. C. Sunder R. Isaac (1974), Ph.D. (Louisville) Apartment 1 2006 House Avenue Port-time Instructor and Research Associate in Chemistry Carl E. Johnson (1974), M.Div. (Colgate Rochester Divinity School) Croduote Assistant in The Divinity School 1753 Morehead Avenue 4311 King Arthur Place Walter T. Johnson, Jr. (1970), J.D. (Duke) Greensboro, N. C. Adjunct Professor of Low 504 Central Avenue Frank G. K. Jones (1973), M.A. (Keele) Groduote Tutor in English Butner, N. C. 512 Colony Woods Drive Robert G. Kaiser (1974), M.Sc. (London School of Economics) Lecturer in Policy Sciences Chapel Hill, N. C. Walter Keel (1974), B.B.A. (Wake Forest) Port-time Instructor in Monogement Sciences 1807 Morehead Avenue Stephen D. Kort (1973), M.M. (North Carolina at Chapel Hill) 1211 Dogwood Lane Raleigh, N. C. Stoff Associote in Music Maurine Boie LaBarre (1961), M.S.W. (Bryn Mawr) Route 1 Port-time Associote Professor of Psychiotric Sociol Work Mount Sinai Road James I. Lader (1973), M.A. (Duke) Part-time Instructor in Romance Longuages 1011 Dacian Avenue

Musia Lakin (1974), M.A. (Chicago) Adjunct Instructor in Psychology 2709 McDowell Street Karla Langedijk (1969), Ph.D. (Amsterdam) 110 Wells Street Lecturer ond Indexer in Art (port-time) Michael M. Later (1973), B.A. (Columbia) Preceptor in Political Science 616 Parker Street Bernard Lefkowitz (1974), B.A. (City Coll. of New York) 419 Hillsborough Street Lecturer in Policy Sciences Chapel Hill, N. C. Gary P. Lehmann (1974), M.A. (Michigan) Graduote Tutor in English 2137 Sunset Avenue Harry L. Levy (1973), Ph.D. (Columbia) Apartment D Visiting Professor (port-time) in Clossicol Studies 3080 Colony Road Roger A. Lewis (1974)), M.A. (London) Instructional Assistant in History 1003 Camden Road Jan Lhotsky (1973), B.A. (Charles) Port-time Instructor in Psychology 319 Latta Road Ko-Wei Lih (1972), M.A. (Duke) Port-time Instructor in Mothemotics 902 Sedgefield Street Apartment 4 Kent P. Ljungquist (1973), M.A. (Connecticut) Groduote Tutor in English 718 Underwood Avenue Robert J. Lontz (1973), Ph.D. (Duke) Adjunct Associote Professor of Electrical Engineering 3626 Hathaway Road Gerd Ludemann (1974), Th.D. (Gottingen, West Germany) Apartment 7-H Visiting Scholor in The Divinity School 610 LaSalle Street Edward J. Lynch (1973), M.A. (Duke) Apartment 1-A Preceptor in Politicol Science 1803 House Avenue S. Kent Madsen (1973), M.A. (Duke) Port-time Instructor in Romonce Longuoges 822 Burch Avenue 3610 Ednor Road Jesse McDade (1974), Ph.D. (Boston) Baltimore, Maryland Visiting Associate Professor (port-time) in Block Studies Robert E. McKeown (1972), M.Div. (Duke) Groduote Assistont in The Divinity School 316 Morreene Road Kathleen McNamee (1974), A.B. (Manhattanville Coll.) Apartment 2 1100 North Buchanan Boulevard Port-time Instructor in Clossicol Studies Carlyle Marney (1972), Th.D. (Southern Seminary) Visiting Professor of Preoching (port-time) in Box 36 The Divinity School Lake Junaluska, N. C. James B. Martin (1970), A.B. (Duke) Assistant Instructor in Physical Education and Assistant Monoger of the Golf Course 1003 Dacian Avenue George Mayer (1974), Ph.D. (Massachusetts Inst. of Tech.) Adjunct Associote Professor of Moteriols Engineering in the Deportment of Mechanical Engineering 2834 Stuart Drive John Menapace (1972) Port-time Instructor in Art 3425-A Randolph Road Adriana Mendez (1974), M.A. (Duke) Apartment F3B Port-time Instructor in Romonce Longuoges 1500 Duke University Road Apartment 2-E Raymond G. Merrill, Jr. (1974), B.S. (Stetson) Port-time Instructor in Chemistry 2724 Middleton Street Sally C. Messrick (1973), M.S. (North Carolina at Chapel Hill) Box 743 Instructor in Nursing (port-time) Pittsboro, N. C. Louis J. Metz (1963), Ph.D. (Duke) 928 Kathryn Street Adjunct Associote Professor of Forest Soils Cary, N. C. John Moeller (1974), A.M. (Duke) Preceptor in Politicol Science Box 4683, Duke Station loyce A. Monroe (1973), M.A. (Duke) Annex F 2215 Elder Street Groduote Tutor in English Richard S. Moore (1973), M.A. (Duke) Apartment 8 Graduote Tutor in English 806 Gregson Street Robert E. Moore (1974), M.A. (Duke) Apartment H2A Port-time Instructor in Philosophy 1500 Duke University Road S. Brent Morris (1973), Ph.D. (Duke) Apartment 1-G Port-time Instructor in Mothemotics 311 South LaSalle Street J. Diane Mowrey (1973), M.A. (Duke) Apartment 5-A Graduote Tutor in English 1700 Chapel Hill Road

Apartment P-4 Richard A. Muller (1973), M.Div. (Union Theological Seminary) Graduote Assistant in The Divinity Schaal 820 Demerius Street Alex J. Mura (1973), M.A. (Duke) Apartment 19-A Graduote Tutor in English 2748 Middleton Street James E. Murphy (1973), M.A. (North Carolina at Chapel Hill) 332-A Clark Street Part-time Instructor in Romance Languages Roderick W. Myers (1973), M.A. (Maryland) Part-time Instructor in Physical Education 3533 Hamstead Court Sue Ellen Myers (1973), M.A. (Duke) Apartment F3B Graduate Tutor in English 1500 Duke University Road Elizabeth S. Nathans (1971), Ph.D. (Jahns Hapkins) 1627 Marion Avenue Lecturer (port-time) in History Renee G. Naves (1974), Ph.D. (Geneva, Switzerland) Part-time Instructor in Chemistry 1303 North Mangum Street Alan Neilson (1973), M.A. (Tulsa) Artist Associate in Music 3208 Eubanks Raad Sandra R. Nelson (1974), M.A. (Wake Forest) Apartment 20-J 200 Seven Oaks Road Graduate Tutar in English M. Wilson Nesbitt, Jr. (1958), B.D. (Duke) D.D. Adjunct Prafessor of the Wark of the Rural Church in The Divinity School 1609 Peace Street Jean F. O'Barr (1969), Ph.D. (Northwestern) Part-time Lecturer in Palitical Science 713 Anderson Street Ranald W. Oppenheim (1973), Ph.D. (Washington) Box 7532 Raleigh, N. C. Lecturer (part-time) in Psychology Pamela B. Ourso (1974), B.A. (Southeastern Louisiana) Route 3, Lat 18 Part-time Instructor in Physical Education Hillsborough, N. C. Robert J. Parsons (1974), M.A. (Trinity Call.) Graduate Tutor in English 1513 Cale Mill Road Walter R. Patten (1974), M.Div. (Duke) Graduate Assistant in The Divinity Schaal Route 7, Box 93 John Pedersan (1973), A.B. (Northwestern) Rogerson Drive Artist Associote in Music Chapel Hill, N. C. Rabert M. Piccirilli (1974), Ph.D. (Clarksan Call.) Part-time Instructor and Research Associate in Chemistry 2013 Ward Street Calin G. Pitt (1969), Ph.D. (Landan) Adjunct Associate Prafessar of Chemistry 2310 Prince Street William F. Pallard, Jr. (1974), M.Div. (Duke) Apartment 4-I Graduote Tutar in English 1505 Duke University Road W. Travis Parter (1972), J.D. (North Carolina) Adjunct Professor of Business Administration 2106 Wilshire Drive E. K. Pawe (1973), J.D. (Narth Caralina) Adjunct Professor of Law 81 Beverly Drive Shelia Pratt (1972) Part-time Instructor in Art 1903 Glendale Avenue James H. Quinlan (1974), M.A. (Taranta) Apartment 18-F Graduate Tutor in English 2748 Middleton Street Frederic Raimi (1974), M.M. (State Univ. of New York) Artist Associate in Music 1404 Wyldewood John W. Rast (1972), M.Div. (Duke) 808 Green Street Graduote Assistant in The Divinity Schaal Frances S. Redding (1970), M.M. (Greensbara) 1401 Queens Raad, West Part-time Staff Associate in Music Charlotte, N. C. Orlie W. Reid (1974), M.S.W. (Maryland) Apartment A 2211 Pike Street Port-time Instructor in Education 501 Long Leaf Drive Walter J. Reinhart (1974), M.B.A. (Oklahama State) Part-time Instructor in Management Sciences Chapel Hill, N. C. Carol Richard (1974), M.A. (Michigan) Apartment K2B Dance Artist in Physical Education 1500 Duke University Road Alan E. Rimer (1973), M.S.S.E. (North Carolina at Chapel Hill) 820 Churchill Drive Part-time Lecturer in Civil Engineering Chapel Hill, N. C. Apartment] Pierre Ritchie (1974), B.A. (McGill) Part-time Instructor in Psychology 221 Anderson Street Verne L. Raberts (1973), Ph.D. (Illinois) Adjunct Prafessar of Mechanical Engineering 4131 Cobblestane Place

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James A. Rabinsan (1974), M.A. (Pennsylvania)

Graduate Tutar in English

Bernard Spielvogel (1972), Ph.D. (Michigan) Route 4, Box 36, Virginia Drive Adjunct Associote Professor of Chemistry Chapel Hill, N. C. Paul J. Stein (1974), B.S. (Bethany Coll.) Apartment 6 Port-time Instructor in Chemistry 2011 Bedford Street Wayne R. Stengel (1973), M.A. (Louisville) Apartment 22 Groduote Tutor in English 301 Swift Avenue Donald J. Stevens (1972), M.A. (Columbia) Port-time Instructor in Religion and Graduote Assistant in the Divinity School 3433 Dover Road Emily Strunks (1974), M.A. (Duke) Apartment E2D 1500 Duke University Road Port-time Instructor in Romonce Languages Myrtle Swain (1973), Ed.D. (Duke) 505 Brentwood Drive Port-time Instructor in Education and Mothematics Wilson, N. C. Carol Swartz (1974), B.A. (Fredonia State) Port-time Instructor in Economics 802 Louise Circle Jiann-Quo Tarn (1974), M.S. (National Cheng King) Part-time Instructor in Civil Engineering 1410 West Markham Avenue Clinton E. Tatsch (1974), Ph.D. (Oklahoma) Apartment 16-B Part-time Instructor and Research Associate in Chemistry 2748 Middleton Street Beverly W. Taylor (1973), M.A. (Duke) Groduote Tutor in English 4709 Duke Station Earlie Endris Thorpe (1969), Ph.D. (Ohio State) Visiting Professor (port-time) in History 164 Oakmont Avenue Arthur L. Thorsen (1974), M.S.A. (George Washington) Port-time Instructor in Mothematics 2613 Legion Avenue Philip H. Trickey (1971), M.S.E.E. (Maine) Visiting Professor (part-time) in Electrical Engineering 112 West Lavendar Avenue Robert L. Utley, Jr. (1974), B.A. (Wake Forest) Apartment 10 Preceptor in Politicol Science 2200 Elder Street Isabel Valiela (1973), M.A. (New York) Apartment B Port-time Instructor in Romonce Longuoges 1700 West Markham Avenue Hendrik Van Dijk (1969) Port-time Lecturer in Art 1015 West Markham Avenue Mary S. Vann (1974), M.A. (Columbia) Port-time Instructor in Education 1314 Shepard Street Sander Vanocur (1974), B.A. (Northwestern) Professor of the Proctice of Communications Policy 3155 Highland Place, N. W. ond Public Affoirs (port-time) in Policy Sciences Washington, D. C. Angelika von Ramm (1971), B.A. (Toronto) Port-time Instructor in Germonic Longuoges and 120 West Seeman Street Fred M. Vukovich (1967), Ph.D. (Saint Louis) 5713 Rangeley Drive Adjunct Associate Professor of Forest Meteorology Raleigh, N. C. John F. Wade (1973), M.A. (Duke) Port-time Instructor in Mothematics 913 North Buchanan Boulevard Lise W. Wallach (1970), Ph.D. (Kansas) Lecturer (port-time) in Psychology 14 Heath Place Lily Pan Wang (1970), M.S.W. (North Carolina) Associote in Psychiotric Sociol Work (port-time) in the Deportment of Psychiotry 2832 McDowell Street Susan P. Ward (1974), M.A. (Duke) Groduote Tutor in English 810 North Street Katharine Way (1968), Ph.D. (North Carolina at Chapel Hill) Adjunct Professor of Physics 3510 Mossdale Road Ronald Weddle (1973) Artist Associote in Music 5300 Peppercorn Street Alfred P. Wheeler (1974), B.S. (Butler) 2410 Chapel Hill Road Part-time Instructor in Zoology Carol C. Whisnant (1974), M.A. (Wake Forest) Apartment 13-C Port-time Instructor in Chemistry 600-1 LaSalle Street John B. White (1973), M.Div. (Duke) Port-time Instructor in Religion and Graduote Assistant Route 4. Box 178 Hillsborough, N. C. in The Divinity School Stephen White (1972), M.F.A. (North Carolina at Chapel Hill) 108 West Main Street, Apt. 2 Port-time Instructor in Art Carrboro, N. C.

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Jules J. Witcover (1974), M.S.J. (Columbia) Adjunct Professor of Policy Sciences Ellen W. Wittig (1969), Ph.D. (Cornell) Lecturer in English (port-time)

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3300 Lexington Road, S.E. Winston-Salem, N. C. Sea Level Hospital Sea Level, N. C.

205 Quail Drive

3454 Rugby Road 171 South Main Street Danville, Virginia

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School of Engineering Library

Alice T. Wilson, M.S.L.S.

Librarian (Assistant Librarian)

Apartment 5-B

Colonial Apartments

Physics-Mathematics Library

Mary Cox. B.A. Librorion

1913 University Drive

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Gene Teitelbaum, B.A., M.L.S., LL.B.

Associate Low Librarian Beth Mobley, B.A., M.L.S.

Assistant Low Librarian Doris Bieber, B.A., M.L.S.

Reference Librorion

Elaine M. Crepeau, B.A., M.L.S. Cotologing Librorion

Mary Katherine Gamewell, A.B., M.S. in L.S.

Documents Librorion Donna J. Melhorn, M.A., M.A. in L.S.

Seriols Librorion

Frederic C. Pearson, B.A., M.A. in L.S. Circulotion Librorion

Sarah F. Roberts

Administrative Secretory

Ruth Antoncic, B.A. Librory Clerk Jane Foerster, B.A.

Librory Assistont Elizabeth Jones, B.A.

Librory Assistont

Lorena Smith Librory Assistont

2645 Umstead Road

1505 Duke University Road

311 S. LaSalle Street

1015 Burch Avenue

1315 Morreene Road

2112 Broad Street

1505 Duke University Road

501 Dupont Drive Route 1, Box 260-CC Hillsborough, N. C.

208 Monk Road 930 N. Greensboro Street Carrboro, N. C.

1406-A Duke University Road Route 1, Lot 5B Hillsborough, N. C.

MEDICAL CENTER LIBRARY

Warren P. Bird, M.S. Director

G. S. Terence Cavanagh, B.L.S. Curotor of the Trent Collection

Mary Ann Brown, M.S. Chief of Reoder Services Kathryn Kruse, M.A.

Reference Librorion Susan C. Smith, B.S., M.F.A.

Assistant Curotor of the Trent Collection

Constance M. Tatum, M.S. Chief Cotologuer Eula Wheeler, M.A. Acquisitions Librorion

ludy Woodburn, M.S. Collections Librarian

Apartment 6-C 1600 Anderson Street

35 Stoneridge Circle

42 Kimberley Drive

3062-F Colony Road

3204 Hope Valley Road

610 Massey Avenue 28 Mt. Bolus Road Chapel Hill, N. C.

3062-F Colony Road

Medical Sciences Branch

Virginia DeTurk Librorian

114 Newell Street

Nursing School Library

Katina Walser Librarian

612 Hibbard Drive Chapel Hill, N. C.

Government and Administrative and Instructional Staff

| The University Trustees Trustees Emeriti | | | 36 19 |
|--|----|-------|----------|
| General Administration | | | 23 |
| | | | 128 |
| Faculty and Administrative Emeriti | | | |
| *Instructional Staff | | | 1473 |
| Professors | | 419 | |
| Associate Professors | | 277 | |
| Assistant Professors | | 341 | |
| Associates | | 105 | |
| Instructors | | 26 | |
| Lecturers | | 6 | |
| Visiting Professors and Lecturers | | 23 | |
| Professors | 5 | | |
| Associate Professors | 5 | | |
| Assistant Professors | 11 | | |
| Lecturers | 2 | | |
| Instructors | 0 | | |
| Part-Time: | | | |
| Adjunct Faculty and Instructional | | | |
| Staff (except Medical School) | | 249 | |
| Adjunct Faculty, Medical School | | 27 | |
| Research Associates | | | 151 |
| Clinical Faculty, Medical School | | | 181 |
| †Educational Administration | | | 24 |
| ‡Business Administration | | | 30 |
| Alumni Affairs | | | 7 |
| §Institutional Advancement | | | 21 |
| Public Relations | | | 11 |
| *Student Affairs | | | 18 |
| +Other Officers and Staff | | | 87 |
| Art | | 3 | |
| Athletics | | 30 | |
| Audio Visual Education-Medical Center | | 8 | |
| Duke University Press | | 8 | |
| Food Services | | 28 | |
| Music | | 3 | |
| University Stores | | 7 | |
| ‡‡The University Libraries | | | 90 |
| | | | |
| | | TOTAL | 2299 |

*Includes 13 officers listed with General Administration.

 $^{^{\}dagger}$ Does not include 10 listed with General Administration; 34 with academic rank listed with Instructional Staff.

Does not include 4 listed with General Administration.

[§]Does not include 1 listed with General Administration.

^{**}Does not include 1 listed with General Administration; 6 with academic rank listed with Instructional Staff.

^{††}Does not include 13 with academic rank listed with Instructional Staff.

^{##}Does not include 6 with academic rank listed with Instructional Staff.



Appendix



Government

1. THE INDENTURE OF TRUST BY WHICH THE UNIVERSITY WAS CREATED

Among the provisions of James B. Duke's Indenture of Trust was an educational institution to be known as Duke University, to the building and support of which he made provision at the time of execution of the Indenture and later by additions thereto by the operation of his Will. In respect to Duke Uni-

versity the Indenture contains the following provisions:

I. (In Article FOURTH) The Trustees hereunder are hereby authorized and directed to expend as soon as reasonably may be not exceeding Six Million Dollars of the corpus of this trust in establishing at a location to be selected by them within the State of North Carolina an institution of learning to be known as Duke University, for such purpose to acquire such land and erect and equip thereon such buildings according to such plans as the Trustees may in their judgment deem necessary and adopt and approve for the purpose, to cause to be formed under the laws of such state as the Trustees may select for the purpose a corporation adequately empowered to own and operate such properties under the name of Duke University as an institution of learning according to the true intent hereof, and convey to such corporation when formed the said lands, buildings and equipment upon such terms and conditions as that such corporation may use the same only for such purposes of such university and upon the same ceasing to be so used then the same shall forthwith revert and belong to the Trustees of this trust as and become a part of the corpus of this trust for all the purposes thereof.

However, should the name of Trinity College, located at Durham, North Carolina, a body politic and incorporate, within three months from the date hereof (or such further time as the Trustees hereof may allow) be changed to Duke University, then, in lieu of the foregoing provisions of this division "FOURTH" of the Indenture, as a memorial to his father, Washington Duke,

who spent his life in Durham and whose gifts, together with those of Benjamin N. Duke, the brother of the party of the first part and of other members of the Duke family, have so largely contributed toward making possible Trinity College at that place, he directs that the Trustees shall expend of the corpus of this trust as soon as reasonably may be a sum not exceeding Six Million Dollars in expanding and extending said University, acquiring and improving such lands, and erecting, removing, remodeling and equipping such buildings, according to such plans, as the Trustees may adopt and approve for such purpose to the end that said Duke University may eventually include Trinity College as its undergraduate department for men, a School of Religious Training, a School for Training Teachers, a School of Chemistry, a Law School, Co-ordinate College for Women, a School of Business Administration, a Graduate School of Arts and Sciences, a Medical School and an Engineering School, as and when funds are available.

II. (In Article FIFTH) Thirty-two per cent of said net amount not retained as aforesaid for addition to the corpus of this trust shall be paid to that Duke University for which expenditures of the corpus of the trust shall have been made by the Trustees under the "Fourth" division of this Indenture so long as its name shall be Duke University and it shall not be operated for private gain, to be utilized by its Board of Trustees, in defraying its administration and operating expenses, increasing and improving its facilities and equipment, the erection and enlargement of buildings and the acquisition of additional acreage for it, adding to its endowment or in such other manner for it as the Board of Trustees of said institution may from time to time deem to be to its best interests, provided that in case such institution shall incur any expense or liability beyond provisions already in sight to meet same, or in the judgment of the Trustees under this Indenture be not operated in a manner calculated to achieve the results intended hereby, the Trustees under this Indenture may withhold the whole or any part of such percentage from said institution so long as such character of expense or liabilities or operations shall continue, such amounts so withheld to be in whole or in part either accumulated and applied to the purposes of such University in any future year or years, or utilized for the other objects of this Indenture, or added to the corpus of this trust for the purpose of increasing the principal of the trust estate, as the Trustees may determine.

III. (In Article SEVENTH) I have selected Duke University as one of the principal objects of this trust because I recognize that education, when conducted along sane and practical, as opposed to dogmatic and theoretical, lines, is, next to religion, the greatest civilizing influence. I request that this institution secure for its officers, trustees, and faculty, men of such outstanding character, ability, and vision as will insure its attaining and maintaining a place of real leadership in the educational world, and that great care and discrimination be exercised in admitting as students only those whose previous records show a character, determination, and application evincing a wholesome and real ambition for life. And I advise that the courses at this institution be arranged, first, with special reference to the training of preachers, teachers, lawyers and physicians, because these are most in the public eye, and by precept and example can do most to uplift mankind, and, second, to instruction in chemistry, economics, and history, especially the lives of the great of the earth, because I believe that such subjects will most help to develop our resources, increase our wisdom and promote human happiness.

IV. (In Article THIRD) As respects any year or years and any purpose or purposes for which this trust is created (except the payments hereinafter di-

rected to be made to Duke University), the Trustees in their uncontrolled discretion may withhold the whole or any part of said incomes, revenues and profits which would otherwise be distributed under the "Fifth" division hereof. and either (1) accumulate the whole or any part of the amount so withheld for expenditures (which the Trustees are hereby authorized to make thereof) for the same purpose in any future year or years, or (2) add the whole or any part of the amounts so withheld to the corpus or the trust, or (3) pay, apply and distribute the whole or any part of said amounts to and for the benefit of any one or more of the other purposes of this trust, or (4) pay, apply and distribute the whole or any part of said amounts to or for the benefit of any such like charitable, religious or educational purpose within the State of North Carolina and or the State of South Carolina, and/or any such like charitable hospital purpose which shall be selected therefor by the affirmative vote of three fourths of the then Trustees at any meeting of Trustees called for the purpose, complete authority and discretion in and for such selection and utilization being hereby given the Trustees in the premises.

2. THE CHARTER OF THE UNIVERSITY

Section 1. That A. P. Tyer, J. H. Southgate, B. N. Duke, G. A. Oglesby, V. Ballard, J. A. Long, J. F. Bruton, J. N. Cole, F. A. Bishop, J. G. Brown, C. W. Toms, J. W. Alspaugh, W. R. Odell, J. A. Gray, F. Stikeleather, Kope Elias, S. B. Turrentine, P. H. Hanes, T. F. Marr, G. W. Flowers, M. A. Smith, R. H. Parker, W. J. Montgomery, F. M. Simmons, O. W. Carr, R. A. Mayer, N. M. Jurney, Dred Peacock, B. B. Nicholson, W. G. Bradsher, E. T. White, T. N. Ivey, J. B. Hurley, R. L. Durham, W. C. Wilson, and their associates and successors shall be, and continue as they have been, a body politic and corporate under the name and style of DUKE UNIVERSITY, and under such name and style shall have perpetual existence and are hereby invested with all the property and rights of property which now belong to the said corporation, and said corporation shall henceforth and perpetually, by the name and style of DUKE UNIVERSITY, hold and use all the authority, privileges, and possessions it had or exercised under any former title and name, and be subject to all recognized legal liabilities and obligations now outstanding against such corporations.

Section 2. That such corporation is authorized to receive and hold by gift, devise, purchase or otherwise, property, real and personal, to be held for the use of said University and its dependent schools or for the use of either or both

(as may be designated in the conveyance or will).

Section 3. That the Trustees shall be thirty-six in number of whom twelve shall be elected by the North Carolina Conference of the M. E. Church, South; twelve by the W. N. C. Conference of the said church; and twelve by the graduates of said University; Provided, however, That no person shall be elected a Trustee till he has first been recommended by a majority of the Trustees present at a regular meeting, and the Trustees shall have power to remove any member of their body who may remove beyond the boundary of the State or who may refuse or neglect to discharge the duties of a Trustee. The term of office of Trustees shall be six years, and they shall be so arranged that four Trustees shall be elected by each Conference and four by the graduates every two years. The Trustees shall regulate by bylaws the manner of election of Trustees to be chosen by the graduates. Should there exist a vacancy by death, resignation, or otherwise of any Trustee, the same shall be filled for the unexpired term by the Board of Trustees. That the present Trustees shall continue and remain in office during the term for which they have been heretofore respectively elected.

Section 4. That the said corporation shall be under the supervision, management and government of a president and such other persons as said Trustees may appoint; the said president, with the advice of other persons so appointed, shall from time to time make all needful rules and regulations for the internal government of said University and prescribe the preliminary examinations and terms and conditions on which pupils shall be received and instructed.

Section 5. That said Trustees shall have power to make such rules, regulations, bylaws not inconsistent with the Constitution of the United States and of this State, as may be necessary for the good government of said University and

management of the property and funds of the same.

Section 6. That the Trustees shall have power to fix the time of holding their annual and other meetings, to elect a president and professors for said University, to appoint an executive committee to consist of not less than seven members, which committee shall control the internal regulations of said University and fix all salaries and emoluments, and to do all other things necessary for an institution of learning not inconsistent with the laws of this State and of the United States.

Section 7. That the Faculty and Trustees shall have the power of conferring such degrees and marks of honor as are conferred by colleges and universities generally; and that five Trustees shall be a quorum to transact business.

Section 8. That all laws and parts of laws or of the charter heretofore granted which are in conflict with this act are hereby repealed.

Section 9. That this act shall be in force from and after its ratification and acceptance by the Board of Trustees.

3. THE BYLAWS OF THE UNIVERSITY

1. The aims of Duke University are to assert a faith in the eternal union of knowledge and religion set forth in the teachings and character of Jesus Christ, the Son of God; to advance learning in all lines of truth; to defend scholarship against all false notions and ideals; to develop a Christian love of freedom and truth; to promote a sincere spirit of tolerance; to discourage all partisan and sectarian strife; and to render the largest permanent service to the individual, the state, the nation, and the church. Unto these ends shall the af-

fairs of this University always be administered.

Article II. Board of Trustees

Article I. Aims

- 1. Powers. All powers of the University shall be vested in a Board of Trustees consisting of thirty-six elected members.
- 2. Nomination and Elections. The Trustees shall be elected as follows: twelve by the North Carolina Conference of the Methodist Church; twelve by the Western North Carolina Conference of the Methodist Church; and twelve by the graduates of Duke University. Each year a roster of nominees shall be referred to the Board by a committee of two faculty members elected by the principal faculty council, two students elected by the principal student council, the president of the Alumni Association and the President of the University as Chairman. The President shall add to the roster nominees proposed by individual students, faculty members and Trustees. For positions to be filled by the graduates of Duke University, the President shall place on the roster nominees proposed by the officers of the National Council and of the General Alumni As-

sociation. The Board, after hearing the recommendations of the Executive Committee, and by a majority of the Trustees present at any regular meeting, shall recommend the persons to be elected Trustees and submit its recommendations to the appropriate conference of the Methodist Church and the graduates.

No person who shall have attained the age of seventy years shall be elected a Trustee.

3. Term. The term of office of a Trustee shall be six years, beginning on the first day of July following election. Terms shall be so arranged that four Trustees shall be elected by each Conference and four by the graduates every two years. No person shall serve more than two consecutive six-year terms, with renewed eligibility for election to the Board following not less than two years absence of membership; provided that Trustees presently (September, 1970) serving a second full term are eligible for re-election for one additional term without an absence of two years.

4. Vacancies. Any vacancy in the membership of the Board shall be filled for the unexpired term by a majority vote of the Trustees present at a regular

meeting of the Board from the roster of nominees.

5. Retirement. A Trustee shall retire on the first day of July after he attains the age of seventy, provided however, that Trustees serving on the Board as of September 1970 may complete their current terms, adjusted to July 1. A Trustee who would attain the age of seventy years during a two-year period of ineligibility shall retire at the end of the term for which he was elected, adjusted to July 1.

6. The aforesaid adjustments to July 1 shall reduce by six months the terms

of Trustees serving on the Board as of January 1, 1974.

7. Emeritus. The Board may elect a retiring Trustee a Trustee Emeritus. Trustees Emeriti shall be entitled to receive notice of all meetings of the Board and attend and participate in such meetings, but shall not have the right to vote. Trustees Emeriti shall be eligible for membership on any standing committee other than the Executive Committee.

8. Removal. Any Trustee who may refuse or neglect to discharge the duties of a Trustee may be removed by the affirmative vote of three-fourths of the

members of the entire Board of Trustees.

Article III. Meetings of the Board

1. Annual Meeting. Annual meetings of the Board of Trustees shall be held on the day next preceding the day on which the graduation exercises take place.

2. Regular Meetings. Regular meetings of the Board shall be held on the Saturday preceding the day on which Founder's Day is celebrated, on the

first Friday in March, and on the last Saturday in September.

3. Special Meetings. Special meetings shall be held upon the call of the Chairman, or upon written request of twelve or more Trustees addressed to the Secretary, with a copy to the Chairman specifying the business to be transacted at the meeting.

4. Notice. The Secretary shall give at least five days' notice to each member of the Board stating the time and place of all meetings, and the purpose of

any special meeting.

5. Place. All meetings of the Board of Trustees shall be held at Duke University in the City of Durham, North Carolina, except that the Trustees by vote, or written assent, of a majority of the then members of the Board may designate another place for any meeting.

6. Quorum. A majority of the then members of the Board of Trustees shall be a quorum for the transaction of business.

Article IV. Officers of the Board

1. Officers of the Board. The officers of the Board shall be a Chairman, a

Vice Chairman and a Secretary.

2. Election. The officers of the Board of Trustees shall be elected at its annual meeting for a term of one year or until their successors are elected and qualified.

3. Duties.

- a. The Chairman shall preside at all meetings of the Board, shall represent the Trustees at public meetings of the University, and shall be a member of and Chairman of the Executive Committee.
- b. The Vice Chairman shall perform the duties of the Chairman in the absence or disability of the Chairman, or in the event of a vacancy in that office.
- c. The Secretary of the University shall also be the Secretary of the Board of Trustees. He shall record the minutes of all meetings of the Board and its Executive Committee, and shall have custody of the Charter, Bylaws, minutes, records and other documents of the Board and its Committees. The Secretary shall send a copy of the minutes to each member of the Board promptly after each meeting of the Board and of the Executive Committee.
- 4. Vacancies. A vacancy in any office of the Board of Trustees may be filled for the unexpired term by the Board of Trustees.

Article V. Committees of the Board

1. Committees. The standing committees of the Board shall be:

a. The Executive Committee

- b. The Business and Finance Committee
- c. The Building and Grounds Committee
- d. The Institutional Advancement Committee

e. The Academic Affairs Committee

The Board may authorize other committees from time to time.

2. Membership. At each annual meeting, the Board of Trustees shall elect the Chairmen (who shall be Trustees) and other Trustee members of the standing committees to serve for two years, beginning July 1. The Chairman of the Board, the Vice Chairman of the Board, and the President of the University shall be members of the Executive Committee. The President of the University shall be a member of all other standing committees of the Board.

Nominations of faculty and student members shall be for one year terms from lists of prospects developed by the President in consultation with repre-

sentative student and faculty groups.

The number of Trustee members and non-Trustee members of any standing committee shall be determined by the Board of Trustees after receiving the recommendation of the committee chairman, and the Trustees may authorize and elect such committee members at any meeting in addition to the annual meeting.

Insofar as practical, membership on the standing committees should be

rotated.

The Committees of the Board shall have the powers and duties set forth in these Bylaws and such other powers and duties as the Board may delegate to them. They shall exercise their powers and perform their duties subject to the direction and approval of the Board. They may from time to time make recommendations to the Board for the establishment of new policies or any changes in existing policies, but without decision-making authority except pursuant to specific delegation by the Board or the Executive Committee.

3. Vacancies. Any vacancy in the membership of a standing committee shall be filled by the Chairman of the Board of Trustees after consultation

with the President of the University.

4. Meetings. Each standing committee shall meet at such times and places and upon such notice as it may determine, and shall file a copy of the minutes of each meeting with the Secretary of the University.

5. Quorum. A majority of the then members of a standing committee

shall be a quorum for the transaction of business.

Article VI. Executive Committee

- 1. Membership. The Chairman of the Board (to serve as Chairman), the Vice Chairman of the Board (to serve as Vice Chairman), the President of the University, the Chairman of each standing committee, and not more than three Trustee members at large shall constitute the Executive Committee of the Board.
 - 2. Powers and Duties. The Executive Committee shall:
 - a. Subject to the provisions of the Charter and these Bylaws exercise all powers of the Board of Trustees in the interim between meetings of the Board.
 - b. Appoint an Investment Committee of not less than five members, at least two of whom shall be Trustees, with the other members being selected from Trustees and officers of Duke University, and Trustees and officers of The Duke Endowment, with such powers and duties as may be assigned to it by the Executive Committee.

c. Coordinate the activities of the other standing committees.

d. Exercise other duties as prescribed in the Charter or as may be delegated by the Board of Trustees.

e. Report its actions to the Board of Trustees.

Article VII. Business and Finance Committee

- 1. Membership. The Business and Finance Committee shall be composed of not less than four Trustees, at least one faculty member, at least one student and the Vice President for Business and Finance, ex officio.
 - 2. Powers and Duties. The Business and Finance Committee shall:
 - a. Keep informed on, consider proposals for, and make recommendations with respect to, the general business affairs and financial organization of the University.

b. Receive and review the annual budgets and recommend their ap-

proval or modification.

c. Maintain an ongoing analysis and review of monthly operating statements, periodic construction summary, and internal audit reports.

d. Recommend the annual appointment of independent auditors. Receive the annual report of the auditors and submit it with recommendations for action.

The Committee shall report its findings and recommendations to the Board of Trustees or the Executive Committee.

Article VIII. Building and Grounds Committee

- 1. Membership. The Building and Grounds Committee shall be composed of not less than five Trustees, at least one faculty member, at least one student, and the Vice President for Business and Finance, ex officio.
- 2. Powers and Duties. The Building and Grounds Committee shall consider proposals for, and make recommendations with respect to:
 - a. Siting of all buildings and related appurtenances such as utilities, roads, and parking areas.
 - b. Commissioning of Project Architects and Engineers, and approval of proposed Contractors for construction projects.
 - c. Evaluation and promulgation of continuing Master Plan for longrange development of the total physical environment of the University, including inherent standards of aesthetics and quality.
 - d. Evaluation of design characteristics of individual projects for adherence to established standards.
 - e. Major renovation work.
 - f. Naming of facilities and parts of facilities.

The Committee shall review priorities for construction and shall have authority to accept all new construction on behalf of the University, but shall not incur any expenses not previously authorized by the Board of Trustees or the Executive Committee.

The Committee shall report its findings and recommendations to the Board of Trustees or the Executive Committee.

Article IX. Institutional Advancement Committee

- 1. Membership. The Institutional Advancement Committee shall be composed of not less than five Trustees, at least one faculty member, and at least one student. Not less than three of the Trustee members shall be alumni of the University.
- 2. Powers and Duties. The Institutional Advancement Committe shall consider proposals for, make recommendations with respect to, and assist the President in, the financial development, fund raising, public relations, and alumni affairs of the University, and carry out other projects and assignments as directed by the Board.

The Committee shall report its findings, recommendations and results to the Board of Trustees or the Executive Committee.

Article X. Academic Affairs Committee

- 1. Membership. The Academic Affairs Committee shall be composed of not less than six Trustees, not less than two faculty members, not less than two students, and the Provost, ex officio.
 - 2. Powers and Duties. The Academic Affairs Committee shall:
 - a. Consider proposals for, and make recommendations with respect to, the educational role of each school, college, and unit of the University and for the University as a whole; provisions for the admission of students at all levels, student life and activities; educational, research, and library programs; and the coordination of all educational activities.
 - b. Promote and coordinate activities of the Boards of Visitors, review their findings, and transmit their reports to the President, and to the Board of Trustees. The President shall appoint the members of the Boards of Visitors.

c. Designate five Trustees from this Committee who, along with an equal number of faculty members designated by the President, and the President, ex officio, shall serve as a Committee on Honorary Degrees to make recommendations to the University faculty and the Board of Trustees.

d. Serve as a Committee on Earned Degrees.

e. Serve as liaison with the University faculty with respect to academic affairs.

The Committee shall report its findings and recommendations to the Board of Trustees or the Executive Committee.

Article XI. Officers of the University

1. The Officers of the University shall be a President, a Chancellor, a Provost, a Vice President for Business and Finance, a Vice President for Health Affairs, one or more other Vice Presidents, a Treasurer, a Secretary, a University Counsel, and such other officers as the Board of Trustees may elect. One person may hold more than one office, except that the offices of President and Secretary may not be held by the same person.

2. These officers shall be elected by the Board of Trustees at its annual meeting for a term of one year and shall serve until their successors are

elected and have taken office.

3. A vacancy in any office of the University may be filled, for the unexpired term, by the Board of Trustees or by the Executive Committee.

Article XII. President

1. The President shall be the chief educational and administrative officer of the University. He shall be responsible to the Board of Trustees for the supervision, management, and government of the University, and for interpreting, and carrying out the policies of the Board of Trustees. He shall have the powers and duties set forth in the Charter and in these Bylaws, and such other powers and duties as the Board of Trustees shall delegate to him.

2. He. or someone designated by him, shall preside at all academic func-

tions and represent the University before the public.

3. He shall preside at all meetings of the University Faculty. He may veto any action taken by the University Faculty or any action taken by the faculty of any college or school in the University and state his reasons for such action.

4. He shall submit a proposed annual budget for the University to the Executive Committee prior to the beginning of the fiscal year covered by the

budget.

5. He shall submit to the Board of Trustees an annual report on the con-

dition, operations and needs of the University.

6. He shall recommend to the Board of Trustees persons to be officers of the University other than the President.

Article XIII. Chancellor

1. The Chancellor, under the President, shall exercise the powers and duties of the President as delegated by the President from time to time.

2. He shall assume the powers and duties of the President during the incapacity or absence of the President when specifically authorized by the President or the Board of Trustees, or in case of a vacancy in the Office of President.

Article XIV. Provost

1. The Provost shall be an executive officer of the University, under the President, responsible for all educational affairs and activities, including research, and for all aspects of student activity and welfare. He shall have the powers and duties assigned to him by the President and shall report to the President.

2. He shall be a member of the faculty of each college and school, and ex officio a member of each committee (other than Committees of the Board of Trustees) or other body concerned with matters for which he is responsible.

3. He shall receive recommendations developed by the faculty and educational officers for consideration and recommendation to the President.

Article XV. Vice President for Business and Finance

1. The Vice President for Business and Finance shall be an executive officer, under the President, responsible for all business and finance, including accounting and auditing, preparation of budgets, fiscal planning, and operating of services of the University. He shall have the power and duties assigned to him by the President and shall report to the President.

2. He shall have custody of all records, contracts, agreements, deeds, and other documents of the University or relating to its operations or properties,

except minutes of meetings.

3. He shall submit to each regular meeting of the Executive Committee a report on those aspects of the finances of the University that the Executive Committee may require, and shall submit to the Board of Trustees at the end of each fiscal year an account of all receipts and disbursements for the preceding year and a statement in such detail as the Board of Trustees may require of the financial condition of the University at the end of such year.

4. He and the personnel under him shall be bonded to the extent deter-

mined by the Executive Committee.

Article XVI. Vice President for Health Affairs

The Vice President for Health Affairs shall be an executive officer, under the President, responsible for the operation of the Medical Center. He shall have the powers and duties assigned to him by the President and shall report to the President.

Article XVII. Treasurer

1. The Treasurer shall report to the President or such officer of the University as the President may direct and shall have the powers and duties assigned to him by the President or such other officer.

2. He may receive and disburse investment funds and purchase, sell, or otherwise dispose of investment securities pursuant to the directions of the

Executive Committee or Investment Committee, as the case may be.

3. He and the personnel under him shall be bonded to the extent determined by the Executive Committee.

Article XVIII. Secretary

1. The Secretary, under the President, shall have all of the powers and duties set forth in these Bylaws and the powers and duties commonly incident to his office. He also shall have the powers and duties assigned to him by the President and shall report to the President.

2. He shall be the custodian of the seal of the corporation and shall affix and attest to same on all duly authorized contracts, deeds and other documents.

3. He shall maintain an official roster setting forth the status of all persons employed by the University.

Article XIX. University Counsel

The University Counsel shall be the legal advisor to the University and shall be responsible for all matters of a legal nature concerning the University, including litigation, preparation or approval of all contracts, deeds, conveyances, or other documents.

Article XX. Faculty

1. The University Faculty shall be composed of the President, the Chancellor, the Provost, the Vice Presidents, the Secretary (who shall also be the Secretary of the Faculty), all deans, professors, associate professors, and assistant professors, and all other full-time members of the instructional staff who are not candidates for degrees at Duke University, Registrar, and the University Librarian, and such other persons as may be designated by the President and approved by the Executive Committee or the Board of Trustees.

2. The University Faculty shall be responsible for the conduct of instruction and research in the various colleges and schools in the University. It may also consider and make recommendations to the President regarding any

and all phases of education at the University.

3. The University Faculty shall approve and recommend to the Board of Trustees the persons it deems fit to receive degrees or other marks of distinction, and the establishment of any new degree or diploma.

4. The University Faculty may organize and exercise its functions through

appropriate councils, committees, or other bodies.

5. Each college and school in the University may have a faculty of its own, which shall be composed of the President, the Chancellor, the Provost, the Secretary, and all members of the University Faculty in the particular college or school. Each such faculty shall function under the President and other officers of educational administration and subject to the regulations of the University Faculty.

Article XXI. Appointments, Promotions and Tenure

1. Members of the University Faculty shall be elected, appointed, or promoted by the Board of Trustees or the Executive Committee upon the recom-

mendation of the Provost, with the approval of the President.

2. Except for positions designated as "adjunct" or "clinical", members of the University Faculty, above the rank of instructors (associates in the Medical School), shall have tenure after seven years of continuous service at the University, or such shorter period as may be determined for individual cases by the Board of Trustees or the Executive Committee.

Article XXII. Sabbatical Leaves

1. Each member of the University Faculty of the rank of professor, associate professor, or assistant professor shall be eligible for sabbatical leave after each six years of service to the University. Such leave may be taken for a full year at half salary or a half year at full salary.

2. Sabbatical leave may be granted by the Executive Committee upon the written recommendation of the dean of the appropriate college or school, ap-

proved by the Provost and the President.

Article XXIII. Retirement

1. All members of the faculty of the University who are eligible for or participate in the TIAA Plan and who would attain the age of seventy years prior to March 1 of a given academic year shall retire at the end of the preceding academic year and all such members of the faculty who attain the age of seventy years on or after March 1 in a given academic year shall retire at the end of such academic year.

The retirement and annuity plan adopted by the University on October 1, 1925, is hereby amended in those respects required to conform with the

provisions of the Bylaws.

Article XXIV. The University Libraries

1. The University Libraries are composed of (1) the William R. Perkins Library and its branches, (2) the School of Law Library, and (3) the Medical Center Library and its branches.

2. The University Libraries shall be responsible for such development and dissemination of scholarly and informational resources required by the academic community for instruction, research, study and publication, as designated as the study of the study and publication are sent to the study of the study and publication are sent to the study of the study

nated by the Provost.

- 3. Professional librarians of the University Libraries shall be composed of the University Librarian, the Librarian of the School of Law, the Director of the Medical Center Library and other such persons as may be designated by the Provost with the approval of the President. The professional librarians shall be appointed or promoted by the Provost, with approval of the President, after the Provost has received recommendations from the University Librarian, the Librarian of the School of Law through the Dean of the School of Law, or from the Director of the Medical Center Library through the Vice President for Health Affairs.
- 4. The professional librarians of the University Libraries may organize and exercise their functions through appropriate councils, committees, or other bodies.
- 5. The University Libraries shall function under the President and other officers of educational administration, and subject to the regulations of the professional librarians of the University Libraries, as approved by the Provost.

Article XXV. Fiscal Year, Academic Year and Academic Calendar

- 1. The fiscal year of the University shall commence on July 1 and end on the following June 30.
- 2. The academic year of the University shall commence on September 1 and end on the following August 31.
- 3. The President shall establish the academic calendar for each academic year, and designate the day on which the graduation exercises shall take place.

Article XXVI. Amendment of Bylaws

These Bylaws may be amended at any regular meeting of the Board of Trustees by the affirmative vote of two-thirds of the then membership of the Board, provided that the proposed amendment is mailed by the secretary of the Board to each member at least twenty days before the meeting.

Alumni Organizations

All former students of Duke University who have earned degrees or who are otherwise qualified by meeting residence requirements are enrolled as members of the General Alumni Association when their classes are graduated.

The purposes of the General Alumni Association, to quote from its constitution, are "... to unite its members in good fellowship and in cooperative enterprise with the faculties, students, officers, and trustees of Duke University, toward the fulfillment of the University's educational and humanitarian purposes; to aid in providing for the University an atmosphere in which scholarship and learning might flourish and in which the continuing search for truth and enlightenment might proceed unhindered; and in all appropriate ways to assist and stimulate Duke University toward significant achievement and influence." The General Alumni Association meets annually, usually in May or June.

Individual sub-associations have been organized by the alumni of the Schools of Divinity. Engineering, Forestry, Law, Medicine, and Nursing. Each graduated class also exists as a permanent organization, with members holding reunions at intervals of five years. Local alumni associations are established in approximately 100 areas where alumni live in concentrated numbers, and

these associations usually meet at least once a year.

The Duke University National Council is the executive council of the General Alumni Association and determines the broad policies and patterns for all alumni organizations. Its membership consists of representatives from each of the organizations and also from each of the University's faculties and student bodies. The National Council meets twice each year, on the Saturday closest to Founders' Day, December 11, and during Alumni Weekend in May or June. In the interim between meetings its business is handled by an executive committee.

The Department of Alumni Affairs is the University's administrative and coordinating agency for all alumni organizations and programs except those that involve a continuing financial support effort. Alumni fund raising programs are administered by the Office of Development. The Department of Alumni Affairs is located in the Alumni House at 2138 Campus Drive and includes the Alumni Records Office as well as a bulk mailing facility available to the University community.

The graduates of the University elect 12 of the 36 members of the University's Board of Trustees, with four being elected in alternate years for six

year terms. The election is by mail ballot.

Gifts and Bequests

Duke University is a privately established institution which derives its principal support from endowment funds and from gifts and grants, thus enabling it to offer both academic and professional training to its students at a fraction of the actual cost. Gifts and grants for both operational and capital development purposes presently account for approximately one-half of the University's annual income. They are essential to the quality of its educational services and to its progress as a center of learning and research.

Gifts to Duke University, of course, fully qualify as tax deductible contri-

butions.

The University welcomes gifts, immediate or deferred, when made without restriction as to use or when designated for any of a broad variety of purposes. Gifts may be of cash, securities, or any kind of real or personal property, depending upon the wishes and the conveniences of the donor, and University officers are prepared to confer at any time to make sure that both the donor's wishes and possible tax advantages are fully realized.

A number of publications, designed to assist the donor in making a gift, are available, and requests for these or other information will be promptly acknowledged. Such requests should be addressed to the Duke University Develop-

ment Office, Duke Station, Durham, N.C. 27706.

Deferred gifts may be made through bequests or through insurance, as well as through a variety of trust arrangements. Such gifts may become significant factors in estate planning, and while qualified counseling is essential in most instances, some sample bequest forms may be noted.

GENERAL

I give (devise; if real property) and bequeath to Duke University, a corporation existing under the laws of the State of North Carolina and located in the City and County of Durham, State of North Carolina, and its successors forever, the sum of dollars (or otherwise describe the gift) for the general purposes and uses of the University at the discretion of the Board of Trustees.

SPECIFIC

I give (devise; if real property) and bequeath to Duke University, a corporation existing under the laws of the State of North Carolina and located in the City and County of Durham, State of North Carolina, or its successors for ever, the sum of dollars (or otherwise describe the gift) and direct that the income therefrom shall be used for the following purposes, viz. (here describe the use desired).

CODICIL

Having hereinbefore made my last Will and Testament dated, and being of sound mind, I hereby make, publish, and declare the following codicil thereto; (here insert clause in same form as if it had been included in body of Will). Except as hereinbefore changed, I hereby ratify, confirm, and republish my said last Will and Testament.

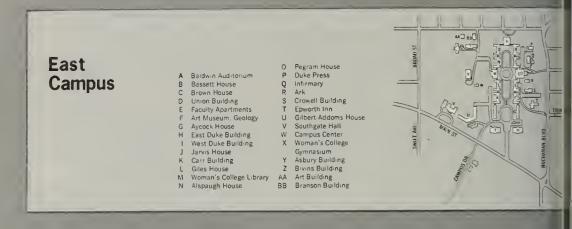
Office of Public Relations

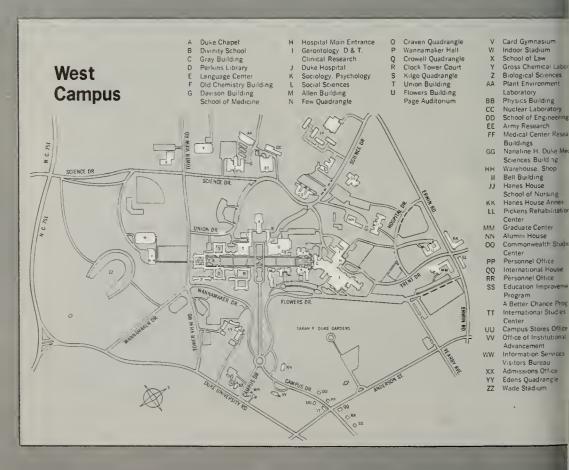
The Office of Public Relations is the official news agency of the University, and all University news, except sports, emanates from this office. The Office maintains the University's relationship with the press, radio and television, and other communications media, and interprets the University—its faculty, its research, and its academic achievements—to the public via these media.

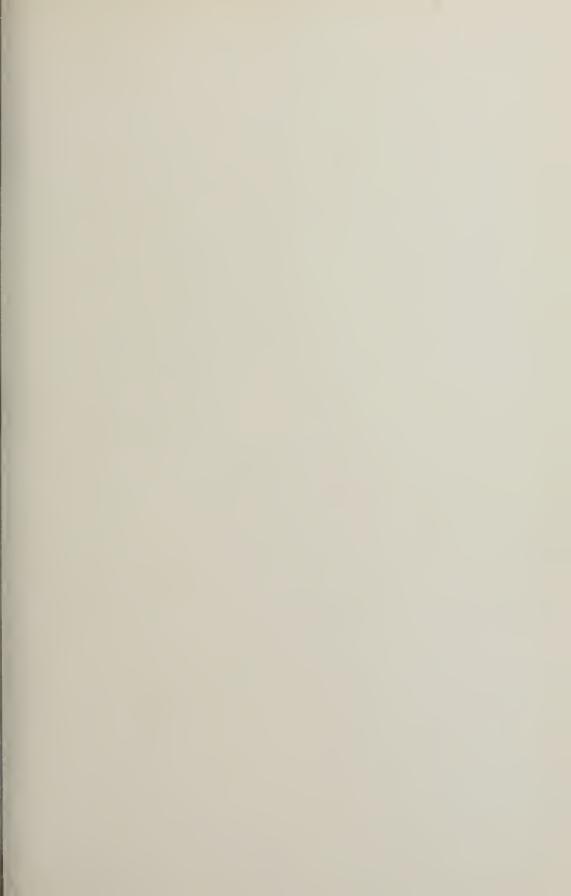
The Office also maintains individual biographical files on all faculty members, students, and staff, as well as files on all University departments and activities. Its files of clippings form a rich source of historical information of the Institution's life. In addition, the Office is a source of information for the many inquiries about Duke University which are received daily from all sections of the nation and from abroad.



MAP OF DUKE UNIVERSITY











1975-1976 BULLETIN OF DUKE UNIVERSITY

Medical Center





Bulletin of Duke University

The Medical Center

1975-1976

EDITOR Sharon Adler EDITORIAL ASSISTANT David R. Vance Duke University Bulletins Office

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May, 1975

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School of Medicine Calendar 1975-1976

First Year (Freshmen) Students 1975

August

29 Friday-Fees and tuition payable

September

- 1 Monday—Labor Day holiday
- 2 Tuesday, 8:30 a.m.—Orientation
- 3 Wednesday, 8:10 a.m.—First day of academic year, 1975-1976, begin fall semester

October

24 Friday—Fees and tuition payable

November

26 Wednesday, 6:00 p.m.—Begin Thanksgiving holiday

December

- 1 Monday, 8:10 a.m.—Classes resume
- 20 Saturday, 6:00 p.m.—Begin Christmas holiday

1976

January

- 5 Monday, 8:10 a.m.—Classes resume
- 9 Friday—Fees and tuition payable
- 10 Saturday, 6:00 p.m.—End fall semester
- 12 Monday, 8:10 a.m.—Begin spring semester

March

- 3 Wednesday—Registration for summer term II, 1975, and terms 1, 2, 3, 4, 1975-1976
- 5 Friday—Fees and tuition payable
- 6 Saturday, 1:00 p.m.—Begin spring vacation
- 15 Monday, 8:10 a.m.—Classes resume

June

26 Saturday, 6:00 p.m.—End spring semester

Second Year (Sophomore),* Third Year (Junior),† and Fourth Year (Senior)† Students 1975

March

- 7 Friday—Fees and tuition payable
- 8 Saturday-End term 3, 1974-1975
- 8 Saturday, 12:00 noon—Begin spring vacation
- 17 Monday, 8:00 a.m.—Classes resume, begin term 4, 1974-1975
- 19 Wednesday—Registration for summer terms I and II, 1975, and terms 1, 2, 3, 4, 1975-1976

April

1-2 Tuesday-Wednesday—Preregistration for Graduate School fall semester, 1975

^{*}Five terms of eight weeks duration.

tFour terms of eight weeks duration.

May

- 7 Wednesday, 8:30 a.m.—Examination Day for juniors and seniors
- 9 Friday—Fees and tuition payable for summer term I, 1975
- 10 Saturday, 12:00 noon—End term 4, 1974-1975
- 10-11 Saturday-Sunday-Graduation activities
 - 12 Monday, 8:00 a.m.—Begin summer term I, 1975

July

- 3 Thursday—Fees and tuition payable for summer term II, 1975
- 4 Friday-Independence Day holiday
- 5 Saturday, 12:00 noon—End summer term l, 1975
- 7 Monday, 8:00 a.m.—Begin summer term II, 1975

August

- 29 Friday—Fees and tuition payable
- 30 Saturday, 12:00 noon-End summer term II, 1975

September

- Monday—Labor Day holiday
- 2 Tuesday, 8:00 a.m.—First day of academic year 1975-1976, begin term I, 1975-1976
- 3 Wednesday, 8:30 a.m.—National Boards, Part I
- 4 Thursday, 8:30 a.m.—National Boards, Part I

October

- 24 Friday-Fees and tuition payable
- 25 Saturday, 12:00 noon—End term 1, 1975-1976
- 27 Monday, 8:00 a.m.—Begin term 2, 1975-1976

November

26 Wednesday, 6:00 p.m.—Begin Thanksgiving holiday

December

- 1 Monday, 8:00 a.m.—Classes resume
- 20 Saturday, 12:00 noon—End term 2, 1975-1976, begin Christmas holiday

1976

January

- 9 Friday—Fees and tuition payable
- 12 Monday, 8:00 a.m.—Classes resume, begin term 3, 1975-1976

March

- 5 Friday-Fees and tuition payable
- 6 Saturday, 12:00 noon-End term 3, 1975-1976, begin spring vacation
- 15 Monday, 8:00 a.m.—Classes resume, begin term 4, 1975-1976
- Wednesday—Registration for summer terms I and II, 1976, and terms 1, 2, 3, 4, 1976-1977

May

- 5 Wednesday, 8:30 a.m.—Examination Day for seniors
- 8 Saturday, 12:00 noon—End term 4, 1975-1976
- 8-9 Saturday-Sunday-Graduation activities

University Administration

GENERAL ADMINISTRATION

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^{*}Member of Duke University Board of Trustees.

Medical Center Administration

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Delford L. Stickel, M.D., Associote Director (Medicol)

Wilma A. Minniear, R.N., M.S.N., Director of Nursing Services

Wallace E. Jarboe, Director, Hospitol Project Monogement Office

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Ella E. Shore, M.R.E., M.A., Dean of Student Affoirs

Judith M. Schwartz, Assistant to the Deon

Katina P. Walser, M.S.L.S., Librorian

Professors Emeriti

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Francis Bayard Carter, M.D., Professor of Obstetrics and Gynecology

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Bingham Dai, Ph.D., Professor of Mentol Hygiene ond Psychotherapy

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J. Deryl Hart, M.D., Professor of Surgery and President Emeritus of Duke University

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*Duncan C. Hetherington, M.D., Ph.D., Professor of Anotomy

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†Frederick W. Stocker, M.D., Clinical Professor of Ophtholmology

Barnes Woodhall, M.D., Jomes B. Duke Professor of Neurosurgery

Standing Committees of the School of Medicine and Medical Center

Admissions-Allied Health

Thomas T. Thompson, M.D., Choirmon; Drs. Carter, Estes, Laszlo, Osterhout, Pratt and Widmann; Mr. Broda and Mrs. Schmidt

Admissions-Medical School

Suydam Osterhout, M.D., Ph.D., Choirmon; Drs. Anderson, Brieger, Christakos, Fellows, Gianturco, Hylander, Johnston, Jones, Kamin, Morris, O'Quinn, Schooler, Tindall, Vogel, Widmann, and Worde; Ms. King, Administrative Assistant; student representatives, Ms. Upchurch and Mr. Woods

Allied Health Program Directors

Thomas T. Thompson, M.D., Choirmon; Drs. Branch, Edwards, Estes, Goodrich, Harmel, Jaeger, Johnston, Kunze, Pratt, Thompson. Widmann, and Wilson; Ms. Owins, Chaplain Aitken; Messrs. Smith and Skolaut

Animal Care Advisory

Joseph L. Wagner, D.V.M., Choirmon; Drs. Bergeron, Bigner, Ellinwood, Griffith, Hall, Lynn, Neelon, Oldham, Currie, Salzano, Tyrey, and Wolbarsht

Audit and Tissue

Clinical chairman of each clinical service and head of each division in service.

Awards Committee for Student Awards

Wendell F. Rosse, M.D., Choirmon; Drs. Anderson, Crenshaw, Everett, Fetter, Hall, Heyden, Hine, Jimenez. McCarty, Oldham, Osterhout, Salzano, and Wilfert

Blood Bank

Drs. Rosse, Silberman, and Whalen

Brain Death

William P. Wilson, M.D., Choirmon; Drs. Cooke, Erwin, Green, Heyman, Mahaley, and Weng

Clinical Cancer Education Program

W. W. Shingleton, M.D., Choirmon and Director; Siegfried Heyden, M.D., Assistant Director; Drs. Abramson, Farmer, Johnston, Metzgar, Porter, Silberman, and Weed

^{*}Deceased, August 7, 1974.

[†]Deceased, June 5, 1974.

Clinical Investigations

Jerome S. Harris, M.D., Choirmon; Delford L. Stickel, M.D., Co-Choirmon; Drs. Anderson, Bevan, Crenshaw, Fetter, Gianturco, House, Kylstra, Talton, and Wilkinson; Chaplain Aitken; Ms. Echols. Fortune, Salter, and Wagner; Mr. Todd

Continuing Education

William J. A. DeMaria, M.D., Choirmon; Drs. Baker, Crenshaw, Clapp, Frothingham, McLelland, Oldham, Parker, Stone, and Tindall; Ms. Dell; Mr. Agnello

Davison Scholarship

William Bradford, M.D., Choirmon; Drs. Kredich, Osterhout, and Nashold

Duke Comprehensive Cancer Center Advisory

W. W. Shingleton, M.D., Choirmon; Drs. Amos, Anlyan, Elchlepp, Hill, Joklik, Katz, Kinney, Lester, Parker, Robertson, Rundles, Sabiston, Tosteson, Wilson, and Wyngaarden

Duke-Veterans Administration Allied Health Education

Thomas T. Thompson, M.D., Choirmon; Drs. Busse, Estes, Green, Johnson, Joklik, Robertson, Rosse, Sabiston, and Wilson

Duke-Veterans Administration Anatomical Gifts

Delford Stickel, M.D., Choirmon; Drs. Chandler, Gardanier, Mahaley, and Pratt; Messrs. Huston and Puckett

Emergency Department Advisory

Delford Stickel, M.D., Choirmon; Drs. Chandler, Clippinger, Frothingham, Johnsrude, Hammond, Llewellyn, Nelius, and Peter; Ms. Desrosiers, Messick, and Hall; Mr. Daniel; Lt. Wheatley

Financial Aid

Ms. Nell Marshall, Coordinator; Drs. Bradford, Lindsay, Osterhout, and Porter; Ms. King; Messrs. McGinty and Petty; student representative, King

Hospital Advisory

Stuart M. Sessoms, M.D., Choirmon; Drs. Brodie, Busse, Estes, Harmel, Katz, Kinney, Lester, Parker, Sabiston, Stickel, Wadsworth, and Wyngaarden; Ms. Minniear; Messrs. Fuller, Jarboe, Peck, and Shytle

Hospital Infections

Suydam Osterhout, M.D., Ph.D., Choirmon; Drs. Cate, Klein, Lang, Oldham, Peete, Weinerth, and Wilfert; Ms. Burke, Higgins, Palmer, and Robins; Messrs. Schwartz and Skolaut

Medical Center Communication Center and Library Policy Advisory

Ewald W. Busse, M.D., Choirmon; Thomas D. Kinney, M.D., Coordinotor; Drs. Hill, Katz, Most, and Wilson; Messrs. Austin, Bird, Cavanagh, and Walser; student representatives, Ms. Bacon and Mr. Domizio

Medical Center Safety

Robert D. Metcalf, M.H.A., Choirmon; Dr. Stopford; Ms. Dell, Higgins, Watkins, and Wilson; Messrs. Bird, Blake, Fowler, Gebhardt, Gooch, Knight, Kozman, Matthews, Oehring, and Skolaut

Medical Education Policy Advisory

Ewald W. Busse, M.D., Choirmon; Drs. Bradford, Crenshaw, Hackel, Johnson, Katz, McCarty, Robertson, Sabiston, Tosteson, and Weinerth; Messrs. Bird and Johnson; student representatives, Ms. Forciea and Clark, Messrs. Clegg, Robertson, and Rutledge

Medical Records

Delford L. Stickel, M.D., Choirmon; Drs. Dixon, Ellis, Potkin, Smith, and Weed; Ms. Borden, Branch, and Eckerle; Messrs. Kulik and Winfree

Medical School Advisory

William G. Anlyan, M.D., Choirmon; Drs. Brodie, Busse, Estes, Harmel, Hill, Joklik, Katz, Kinney, Lester, Parker, Robertson, Sabiston, Sessoms, Tosteson, Wadsworth, and Wyngaarden

North Carolina Residence

Suydam Osterhout, M.D., Ph.D., Choirmon; Drs. Clapp, Johnson, and Peete; Mr. Johnson

Operating Room Advisory

David Sabiston, M.D., Choirmon; Drs. Chandler, Creasman, Goldner, Harmel, Parker, Pickrell, and Vartanian; Ms. Flemming and Owins; Messrs. Brandon and Wheeler

Outpatient Advisory

Arthur Chandler, M.D., Choirmon; Drs. Baylin, Feldman, Fowler, Graham, Habig, Hammond, Howell, Oldham, Pounds, and Sessoms; Ms. McColm

Portraits, Pictures, and Memorabilia

Elon Clark, Choirmon

Public Relations Advisory

Sam Agnello, A.B., Choirmon; Drs. Anderson, Ottolenghi, and Vanaman; Ms. Webb; Messrs. Bennett, Gooch, Schwartz, and Sigler

Radioisotope

H. Kamin, Ph.D., Choirmon; Drs. Briner, Goodrich, Harris, Sanders, and Tyor; Messrs. Knight and Wheeler

Research Award

Jerome Harris, M.D., Choirmon; Drs. Appel, Metzgar, Schanberg, Semans, Vogel, and Wallace

Trent Prize

G. S. T. Cavanagh, B.L.S., Choirmon; Dr. Brieger; a student representative

Utilization Review

Robert H. Wilkinson, Jr., M.D., Choirmon; Drs. Borchert, Bossen, Neisch, Osterhout, Parker, Portwood, Reed, and Young

Veterans Administration Hospital Research and Education

Robert L. Green, Jr., M.D., Choirmon; Drs. Byhardt, Greene, Greenfield, Postlethwaite, O'Toole, Rosse, Sommer, and Wilson

Vice-President's Veterans Administration

William G. Anlyan, M.D., Choirmon; Roscoe R. Robinson, M.D., Vice Choirmon; Drs. Brodie, Busse, Estes, Harmel, Hill, Kinney, Lester, Sabiston, Sessoms, Wadsworth, Wilson, and Wyngaarden





General Information



History

In 1924 James Buchanan Duke established The Duke Endowment and thus made possible the creation of Duke University.

I have selected Duke University as one of the principal objects of this trust because I recognize that education, when conducted along sane and practical, as opposed to dogmatic and theoretical,

lines is, next to religion, the greatest civilizing influence.

I have selected hospitals as another of the principal objects of this trust because I recognize that they have become indispensable institutions, not only by way of ministering to the comfort of the sick, but in increasing the efficiency of mankind and prolonging human life.... I very much hope that the people will see to it that adequate and convenient hospitals are assured in their respective communities.... It is to these rural districts that we are to look in large measure for the bone and sinew of our country.

In Item VIII of his will, Mr. Duke bequeathed to The Duke Endowment ten million dollars for Duke University, of which four million dollars was to be expended for a medical school, hospital, and nurses' home at Duke University.

Wards and clinics in the hospital were named for emiment physicians and surgeons in order to remind the staff and students of what has been accomplished in medicine, as well as to follow Mr. Duke's Indenture: "I advise courses in history, especially the lives of the great of the earth."

The School of Medicine and Duke Hospital (consisting of 400 beds) were opened in 1930 under the leadership of the first dean, Dr. Wilburt C. Davison, who had recruited an outstanding faculty on a geographic full-time basis. During that same year, the first class of medical students, hospital administration students, and dietetic students were admitted. The Private Diagnostic Clinic was organized in 1932 to provide coordinated medical and surgical care for private patients of moderate incomes.

Over the years the Medical Center has been enlarged and its programs expanded by new construction, and by the acquisition of, and affiliation

with, established hospitals.

Currently, the Medical Center at Duke University consists of the following buildings on the campus where the offices and departments listed are located: Davison Building—Department of Pathology, and Central Teaching Facility, Division of Audiovisual Education, Medical Center Administration, Student Lounge, Office of Admissions; Duke Hospital—Departments of Medicine, Pediatrics, and Surgery, and Amphitheater, Chapel, Private Diagnostic Clinics, Outpatient Clinics, Pharmacy, and Physical Therapy; Nanaline B. Duke Medical Sciences Building-Departments of Biochemistry and Physiology-Pharmacology; Gerontology Building—Center of Aging, Department of Psychiatry, offices and laboratories of Medicine, Pediatrics, and Surgery; Diagnostic and Treatment Building-offices and clinics of Medicine, Surgery, Pediatrics, and Psychiatry; Clinical Research I—offices and laboratories of Medicine and Surgery and research wards; Clinical Research II—Hyberbaric Unit, offices and laboratories of Medicine, Surgery, Pediatrics, and Psychiatry, and the Clinical Cancer Research Unit; Medical Research Laboratories—offices and laboratories of Physical Anthropology, Microbiology, and Radiology; Research Park—Department of Microbiology and Immunology, offices and laboratories of Medicine, Surgery, Pediatrics, and Radiology; Main Entrance Building-Hospital Administration, offices and laboratories of Obstetrics-Gynecology and Pediatrics, delivery rooms, and the Emergency Service; Baker Houseoffices of Nursing, Medicine, Surgery, Obstetrics-Gynecology, Hospital Administration, and Pastoral Care and Counseling; Bell Building-offices and laboratories of Medicine, Surgery, Pediatrics, Radiology, Anatomy, and Ophthalmology, and Information Services, Gross Anatomy Laboratories, and the Research Training Program; Pickens Rehabilitation Center—General and Rehabilitation Outpatient Clinics; Student Health Service, Employee Health Service, and Faculty Family Health Service; Civitan Mental Retardation and Child Development Center—offices, clinics, and laboratories of Psychiatry and Pediatrics; Graduate Center—Department of Community Health Sciences; Alex Sands Medical Science Building—Department of Anatomy and clinical science research programs of the Department of Medicine, Surgery, Psychiatry, and Anesthesiology; Eye Center—patient-care activities of the Department of Ophthalmology and its offices and laboratories; Seeley G. Mudd Communications Center and Library—Medical Center Library, Trent Collection of History of Medicine, Barchas Collection of History of Science.

Construction has begun on two buildings which will be components of the Comprehensive Cancer Center. One will be the Edwin L. Jones Basic Cancer Research Building and the other will be a special animal laboratory and iso-

lation facility for work with tumor viruses.

Duke University Medical Center continues to strive to be a leader in contemporary medicine. This involves maintaining superiority in its four primary functions: patient care, educational programs, research, and service to the region. The Medical Center identifies its growth with a deeper involvement in the social aspects of health, the establishment of advanced therapeutic and research facilities, a building program that will require one or more decades for its completion, and an imaginative revision of the medical teaching program that has attracted the attention of educators around the world.

Resources for Study

Library. Near the beginning of the 1975-76 academic year the Medical Center Library will occupy the new Seeley G. Mudd Building. For the first time in many years the entire collection of 137,000 volumes and 2,000 current



periodicals will be available under one roof. Study accommodation for 500

readers will include provision of audiovisual aids.

The library includes the Trent Collection which is unsurpassed in the Southeast as a resource for the study of the history of medicine, and the Barchas Collection which is to be developed into a comparable resource in the history of science. A branch collection of books and journals is maintained in the Nanaline B. Duke Medical Science Building.

The Medical Center Library is open: Monday-Friday, 8:30 a.m.-midnight; Saturday, 8:30 a.m.-9:00 p.m.; Sunday, 12:00 noon-11:00 p.m. Summer and

holiday hours are as announced.

Director: Warren P. Bird, M.S. (Columbia, 1964), Associote Professor of Medicol Literoture; Curator of the Trent Collection: G.S.T. Cavanagh, B.S., B.L.S. (McGill, 1951), Professor of Medicol Literoture.

The Central Teaching Facility. The Central Teaching Facility, located on the fourth floor of Davison Building, provides laboratory, demonstration, and conference space for all courses taught in the basic sciences with the exception of gross anatomy. A full-time staff maintains a wide range of equipment and provides supplies and services necessary for the teaching programs conducted in the facility, thus enabling the academic staff of each department to devote

its efforts entirely toward the students.

Six unit laboratories, each accommodating twenty students, and a twelve man M.D.-Ph.D. candidate laboratory are devoted to first year instruction. Each first year medical student is given a place in one of these laboratories for his own work area which he maintains for the entire academic year. Four small laboratories are interspersed between the six unit laboratories and provide space for large pieces of equipment used in conjunction with exercises conducted in the unit laboratories. They also provide space for small laboratory projects. Two large multipurpose laboratories can accommodate over fifty students each for a large variety of teaching exercises. Other areas include demonstration and conference rooms and a microscopy laboratory for advanced courses offered during the third year.

In addition to providing services to the School of Medicine, the Central

Teaching Facility provides its resources for use throughout the year by allied health science programs.

Manager: J. Edward King, M.A.; Assistant Manager: Marguerite Pennington, Ph.D.

Division of Audiovisual Education. The Division of Audiovisual Education provides the Medical Center with audiovisual materials to assist the faculty. The Division has three subdivisions: the Medical Art Facility, the Medical Photography Facility, and the Central Television Facility.

The Medical Art Facility provides illustrations produced by various art methods and techniques. Services rendered are medical illustrations, schematic and mechanical drawings, diagrams, charts, graphs, designs, lettering, signs,

casts, models and exhibits, and other forms of illustrations.

The Medical Photography Facility is staffed and equipped to provide all photographs needed in the diagnosis and treatment of patients, for teaching, and in research. For example, the photographers take pictures of patients, including such fine details as the patterns of vessels on the retinae or those of the skin as they are revealed by infrared light. Standard sized slides,

transparencies, and prints are produced as requested.

The Central Television Facility also provides services for teaching, research, and patient-care programs. During the past several years, a collection of videotaped materials has been produced for group teaching and individual student study. In addition, a two-channel television link (ITFS) has been established between the Central Television Facility and the Durham V. A. Hospital. This link makes possible two-way, two-channel transmissions for use in educational programs. Motion pictures in color and with sound are produced by this section also. Classroom services, projectionists, and projectors are provided.

Although no formal study programs in medical art, medical photography, and medical television are scheduled, individual training, tailored to the

student's need, is available.

Director: Sam A. Agnello, A.B.

Duke Hospital. Duke Hospital, one of the largest private hospitals in the south, is part of the Medical Center and currently has 855 beds. The hospital directs its efforts toward the three goals of expert patient care, professional education, and service to the community. It offers patients modern comprehensive diagnostic and treatment facilities and special acute care and intensive nursing units for seriously ill patients. Ambulatory patients who need little nursing attention may be admitted to a minimal care unit. Surgical facilities include eighteen operating rooms where hospital surgeons perform more than 16,000 operative procedures annually. Approximately 1,800 babies are born each year in the delivery suite. Other special facilities for patients include a heart catherization laboratory, cancer research unit, pulmonary care unit, hyperbaric oxygenation chamber, and cardiac care unit.

The over 29,000 patients admitted annually have their choice of private, semi-private, or ward accommodations. Close working relationships with private and governmental health and welfare agencies provide opportunities

for continued care of patients after they leave Duke Hospital.

Ambulatory services include the nonprivate outpatient clinics, private diagnostic clinics, the employee health office, and the emergency department, with annual total patient visits of over 400,000. The clinical faculty of Duke University School of Medicine participates in undergraduate and graduate medical education and practices medicine in the hospital and in private diagnostic clinics.

Duke Hospital, with a house staff of approximately 490, is approved for internship and residency training by the Council on Medical Education and Hospitals of the American Medical Association and is fully accredited by the Joint Commission on Accreditation of Hospitals.

Veterans Administration Hospital. The Durham Veterans Administration Hospital, with 489 beds, annually admits over 7,000 patients. Within walking distance from the School of Medicine, closely integrated teaching and training programs for medical students and house staff are provided by the full-time professional staff who are members of the faculty of Duke University School of Medicine.

Highland Hospital. Highland Hospital, in Asheville, North Carolina, is a 131-bed, private, nonprofit, psychiatric hospital. It was founded in 1904 by Dr. Robert S. Carroll, who donated the hospital in 1939 to the Duke University Medical Center. In July, 1967, Highland Hospital was fully integrated into the Duke University Medical Center as a division of the Department of Psychiatry.

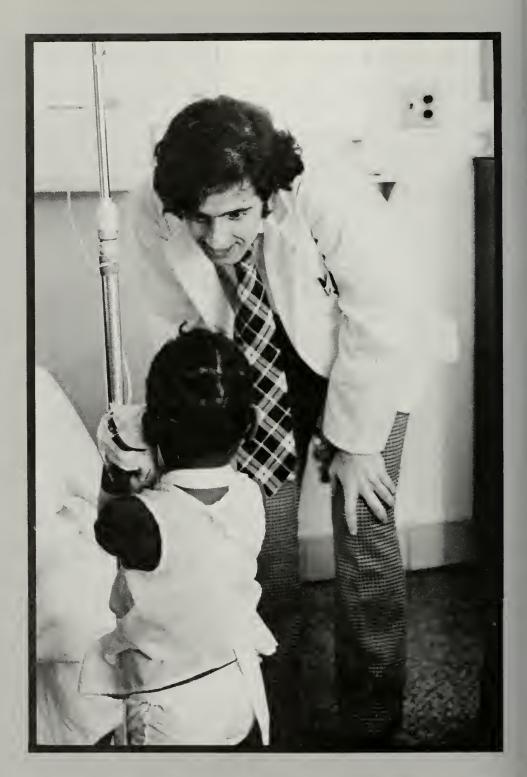
All full-time psychiatrists, psychologists, and social workers at Highland Hospital hold academic appointments in the Department of Psychiatry of the Duke University Medical Center. The faculty at Highland is active in teaching psychiatry, psychology, and psychiatric social work to medical students, psychiatric residents, student psychologists, student social workers, and physician's associate students. Members of the faculty may also be involved in psychiatric and psychological research as well. These academic endeavors, and a striving for excellence that accompanies them, provide a stimulating atmosphere for the best possible patient care.

Sea Level Hospital. Sea Level Hospital in Carteret County, North Carolina, became part of Duke University Medical Center in 1969 as a result of a gift by D. E. Taylor and family of West Palm Beach, Florida. The 74-bed community hospital retains its professional and administrative staff, with representatives of the Medical Center serving in an advisory capacity. It provides an opportunity for medical students to obtain experience in the practice of medicine in a small community.

Lenox D. Baker Cerebral Palsy and Crippled Children's Hospital. The Lenox D. Baker North Carolina Cerebral Palsy Hospital, with 40 beds, is a residential rehabilitation center for children with neuromuscular and skeletal diseases, primarily cerebral palsy. Although it is a state institution, physicians on the faculty of the Duke University Medical Center conduct interdepartmental teaching and training programs for house staff, medical students, and the Cerebral Palsy Hospital staff.

Watts Hospital. Watts Hospital is a county-owned, 318-bed, general, short-term care community facility serving the residents of Durham County. This institution participates in many of the medical and health-related professional training experiences.

Other Hospitals. Various cooperative teaching and training programs are available for medical and allied health professional students and house staff at other hospitals including Lincoln and McPherson Hospitals in Durham, Oteen Veterans Administration Hospital in Buncombe County, Murdoch Center for Retarded Children and John Umstead Hospital in Butner, Dorothea Dix Hospital in Raleigh, and Cabarrus Memorial Hospital in Concord, North Carolina.



Program Information



The Medical Curriculum

In recent years, analysis and appraisal of medical curricula have resulted in changes in many medical schools. Several factors have required these changes. Important among them are the increasing scope and complexity of medicine generally, and the dissatisfaction with the sharp cleavage between basic science and clinical years. As a result of long study, the Duke University School of Medicine instituted a major revision of the curriculum,

beginning with the class which entered in the fall of 1966.

The aims of the present curriculum are: (1) to provide a strong academic basis for a lifetime of growth within the profession of medicine, with the development of technical competency, proficiency, and the proper attitudes peculiar to the practice of medicine as well as appreciation of the broader social and service responsibilities; (2) to establish for the first year a basic science program which will fulfill the purposes of the increasingly heterogeneous student body; (3) to offer both clinical and basic science education simultaneously; (4) to permit the student to explore his personal intellectual preferences and capabilities; (5) to allow in-depth study in selected areas, either clinical or basic science; (6) to provide greater freedom of course selection and thus to encourage earlier career decision; and (7) to achieve better integration of the medical school curriculum with residency training and the practice of medicine.

The curriculum, while offering a previously unattainable degree of flexibility to medical education and new opportunities for intellectual exploration, also makes heavy demands upon the student. It should be recognized that a medical student at Duke University School of Medicine is expected to maintain a consistent level of attainment and to demonstrate qualities of initiative and dedication to his chosen profession. A scholarly attitude toward medicine that will continue throughout an entire career is an important objective of the Medical School. The foundations of this

attitude to learning should accompany the student when he enters.





A student is expected to maintain at all times a professional attitude toward patients, to respect confidences, and to recognize that he is the recipient of privileged information only to be discussed within the context of scholarship and in circumstances that truly contribute to the educational process or to the care of the patient. This attitude involves consideration not only of speech and personal appearance but also of morality, honor, and integrity.

Doctor of Medicine Degree

The degree of Doctor of Medicine is awarded upon approval by the faculty of Duke University to those students who have completed the curriculum of the School of Medicine, who have demonstrated their fitness to practice

medicine by adherence to a high standard of ethical behavior and morality, and who have paid or made satisfactory arrangements to pay all indebtedness to the University. Students are required to take Part I of the National Board Examinations on a candidate basis, during either September or June following successful completion of the first year.

Course Requirements—First Year. The student will study the principles of all the basic science disciplines. Rather than mastering an encyclopedic array of facts, the purpose will be to acquire familiarity with the major principles of each subject. An introduction to clinical medicine will be presented by the clinical services. The year will be divided into two terms of instruction, of eighteen weeks and twenty-three weeks, as follows:

| Term 1 | Credit |
|--|--------|
| Gross Anatomy | 3 |
| Microanatomy | 3 |
| Neuroanatomy | 2 |
| Biochemistry | 5 |
| Physiology | 5 |
| Genetics | 19 |
| Term 2 | Credit |
| Pathology | 5 |
| Microbiology | 5 |
| Introduction to Clinical Diagnosis: | 5 |
| Laboratory, Physical, and Radiologic Diagnosis | |
| Pharmacology | 4 |
| Human Behavior | 2 |
| Community Health Sciences | 2 |
| Immunology | 1 |
| | 24 |

Course Requirements—Second Year. The second year will provide an exposure to clinical science disciplines, which permit the student early in his career to become a participant in the care of patients. The acquired appreciation of the problems of the clinical areas and the opportunities to recognize the applications of the basic sciences should lead to a more meaningful selection of courses for the subsequent two years. The second year will be divided into five terms of eight weeks each as follows: medicine, obstetrics, pediatrics, psychiatry, and surgery.

Course Requirements—Third and Fourth Years. These two years will be made up of elective courses, selected by the student within requisite limitations. Each student will choose professional advisers from the preclinical and clinical faculties to assist him in formulating his program for the third and fourth years. Half of the time must be devoted to basic science and half to clinical science. Completion of the Medical Research Training Program or one of the special study programs may fulfill the requirements for basic science.

The elective courses of study offered are described under each department. The wide selection affords an opportunity for each student to design his program to satisfy best his needs in conformity with his medical future, with guidance from his advisers.

As an alternative after completion of the second year, the student may enroll as a Ph.D. candidate in one of the basic sciences, earning this degree in two or three years. Then, having completed three of the four years necessary

for a Doctor of Medicine degree, he may earn that degree by completing a fourth clinical year.

The third and fourth years will be divided into eight terms of eight weeks each. Certain courses as noted will be offered during two summer terms.

Promotion. The records of each student are reviewed periodically by promotion committees composed of the department chairmen. The Director of Medical Education acts on the recommendations received from the promotion committees and may:

1. Promote students whose work is satisfactory.

2. Warn students whose work is less than satisfactory that they must improve their scholastic endeavor.

3. Place on probation students whose work is unsatisfactory.

4. Request the resignation of any student who is considered an unpromising candidate for the degree of Doctor of Medicine.

A student wishing to appeal a decision may do so to the Director of

Medical Education within two weeks of his notification.

The Director, with the advice of the Medical School Advisory Committee, reserves the right to require the withdrawal of any student at any time if, in the opinion of the majority of committee members, the student should not continue in the Medical School.

Combined Degree Programs

Medical Scientist Training Program. The Medical Scientist Training Program is designed for highly qualified students strongly motivated toward a career in medical sciences and academic medicine. It provides an opportunity to integrate graduate education in one of the sciences basic to medicine with the full clinical curriculum of the School of Medicine. The program requires six to seven years of study and leads to both the M.D. and Ph.D. degrees. Although the special emphasis of this program is on basic medical science, the trainees, because of their education in clinical medicine, have a remarkable range of career opportunities open to them. Graduates of this program follow one of two broad paths. Some embark directly on careers in teaching and research in one of the basic medical sciences, while maintaining strong ties with clinical science as a result of their combined training. Others enter residency programs before pursuing investigative and teaching careers in clinical medicine, carrying with them strong academic backgrounds which allow them to conduct fundamental research with a foundation of superior training and experience in basic sciences.

Eligibility. Applicants must meet the admission requirements of both the Medical School, as a candidate for the M.D. degree, and the Graduate School as a candidate for the Ph.D. degree. Most candidates apply for admission to the first year of the program, but applications are accepted from students who are in residence in the Medical School or Graduate School of Duke University. In addition to the minimum requirements for acceptance to the Medical School and the Graduate School, advanced course work in science and mathematics as well as prior research experience will count heavily in the selection

of candidates.

Financial Support. Students admitted to the first year of the program will receive a traineeship award, consisting of a stipend and full tuition allowance, provided by a grant from the National Institutes of Health. Currently, the annual stipend is \$3,000 plus \$600 per dependent for the first four years of the program and \$5,000 plus \$600 per dependent in subsequent

years. Support will be continued until the trainee has completed both degrees

provided progress remains satisfactory.

The Training Program. This program has been designed to offer trainees great latitude in the selection of course material. Basic requirements are two academic years composed of the first basic science year and the second clinical science year of the curriculum for medical students at Duke University. Following completion of the second year, the trainee enters the graduate program to complete the requirements for the Ph.D. degree. One more academic year of elective clinical study is necessary to complete the requirements for the M.D. degree. Both degrees are awarded at the completion of this sequence.

Year 1—Core Basic Science Year. This year consists of courses in anatomy, biochemistry, genetics, microbiology, pathology, pharmacology, and physiology. An introduction to clinical methods concludes the first year. Students in the Medical Scientist Training Program work together throughout the first year, during which time they are encouraged to select their field of graduate study. In the summer between the first and second years, trainees normally will be expected to begin the second-year clinical rotations.

Year 2—Core Clinical Science Year. This year encompasses a comprehensive approach to medicine, oriented to the patient as a whole. The year provides fundamental training in clinical medicine, with emphasis on the relationships between general biological processes, from conception through birth, development, and maturation to senescence and death, as well as individual clinical states. Special consideration is devoted to the pattern of developmental sequences and to the changes in that pattern determined by genetic composition and the particular environment in which the patient lives.

During the second year, the trainee is taught primarily by teacher-investigators from the clinical departments. The core clinical year is divided into five terms of eight weeks each, encompassing medicine, obstetrics, pediatrics, psychiatry, and surgery. These may be taken in any sequence.

Years 3, 4, 5, (6)—The Graduate Years. During the third, fourth, and fifth and, if necessary, sixth year of the program, the trainee pursues graduate study in order to satisfy the requirements for the Ph.D. degree. These requirements include: (1) completion of necessary course work, (2) adequate performance in the preliminary examination, (3) original research suitable for a dissertation, and (4) successful defense of the thesis in the final examination. Detailed description of other general requirements for the Ph.D. degree are stated in the Bulletin of the Graduate School.

The graduate curriculum of each trainee is developed in consultation with the director of graduate studies of the department in which the trainee elects to study and requires the approval of the Medical Scientist Training Program Committee. Since most of the ordering ideas and experimental techniques of all the medical sciences derive from mathematics and the physical sciences, it is essential to ensure that all students in the program have an adequate foundation in these subjects. Because of the close working relationship and geographical proximity of the departments of medical and physical sciences at Duke, the setting is unusually favorable for the achievement of that goal.

Descriptions of the graduate courses in the Departments of Anatomy, Pathology, Microbiology, Biochemistry, Genetics, Physiology, Pharmacology, Biomedical Engineering, and Computer Science are listed in the Bulletin of the Graduate School. Trainees are encouraged to select courses which are

relevant to their developing individual interests rather than according to a prescribed curriculum applied to all students in a given discipline. It is our view that such range, flexibility, and freedom are the essence of graduate education. The original research and dissertation of each trainee is supervised by a faculty adviser chosen by the trainee in consultation with the director of graduate studies in his department. The faculty adviser is the chairman of the trainee's supervisory committee, which consists of at least three members from his major department. This committee generally administers the preliminary examination before the student commences original research, and the final examination after the student completes his dissertation.

Final Year—An Elective Year in Clinical Science. In this year, which is entered only after completion of all requirements for the Ph.D. degree, the student is assigned a faculty adviser from the clinical discipline in which he is most interested. The student and his adviser construct an individualized curriculum, which often places major emphasis on one clinical area and minor emphasis in other fields. One aim is the integration of research interests and clinical experience in such a way that the student's research competence will be facilitated; therefore, this year is planned with regard to the trainee's proposed career in research as well. This elective year provides further training in clinical medicine to complement the second or core clinical year. so that the trainee's total clinical experience is the same as that given in the regular clinical years of medical school (the third and fourth years in the majority of schools). It should be noted that since students in the program receive the M.D. degree upon completion of this final year, great care is taken by the faculty to ensure that students are competent and knowledgeable in current concepts of patient care. It is hoped that the final year will provide the student with an experience which is not repeated during his residency training but will serve to complement later phases of his training. Thus, the future surgeon might be exposed to fields other than surgery, since he will receive intensive training in that discipline during his residency.

Application and Admission Procedure. The following guidelines should be observed by individuals applying to the Medical Scientist Training Program.

1. The application form for the Duke University School of Medicine should be completed and submitted as early as possible. Since acceptance into the Medical Scientist Training Program is contingent upon prior acceptance into the School of Medicine, all candidates are first considered to be applicants to the School of Medicine.

2. The application form for the Medical Scientist Training Program should be completed and submitted with the application to the School of Medicine. To ensure full consideration by the Program Selection Committee, this application should be mailed no later than November 1.

3. To facilitate review of this application, the Medical College Admission Test should be taken, if possible, in May of the year that the application will be submitted.

4. Only those applicants who are accepted for the program will be requested to complete an application form for the Graduate School. The Graduate Record Examination is not required for this purpose.

5. Applicants will be notified about acceptance into the program on or

about February 15.

Faculty and student members of the Medical Scientist Training Program will be available to discuss the Program with applicants visiting Duke University. Additional information may be obtained by writing Robert E. Fellows, M.D., Ph.D., Associate Director, Medical Scientist Training Program, Box 3709, Duke University Medical Center, Durham, N. C. 27710.





The Medical Historian Program. The Medical Historian Program is conducted under the auspices of the School of Medicine and the Graduate School to professionally train medical historians. A minimum of six years of graduate study is required. Upon satisfactory completion of the program, the Doctor of Medicine and Doctor of Philosophy degrees will be awarded. It is anticipated that graduates will undertake a minimum of one year of postgraduate medical training, following which their major effort will be in teaching and scholarly activities (in the field of the history of medicine), with minor clinical responsibilities.

Basic requirements are two academic years in the School of Medicine consisting of core basic sciences in the first year ending with the course Introduction to Clinical Medicine, and core clinical sciences during the second year, following which the student enters the Department of History

in the Graduate School.

Candidates for the Ph.D. degree in history devote approximately two full years to the completion of their required courses, work in seminars, and in preparatory study for their preliminary or qualifying examinations. The actual length of time needed to earn the Ph.D. degree depends upon the number of years beyond this two-year period candidates find necessary for research and writing of their dissertations. Candidates will pursue studies in the Department of History during the third and fourth academic years of the program. In the fifth and sixth years, the student should have one year in which to pursue medical-historical research and one year of elective courses in the School of Medicine to fulfill the requirements for the M.D. degree.

Application and Admissions Procedures. Applicants must meet the requirements for admission to the School of Medicine and the Graduate School

in the Department of History. Candidates who have completed two years of medical school will also be considered. In addition to the minimum requirements established by the School of Medicine and the Graduate School, courses in history and in the history and philosophy of science will count heavily in the selection of candidates.

Applicants should complete and submit an application form to the Duke University School of Medicine. After preliminary screening, selected candidates will be requested to submit an application to the Graduate School for admission to the Department of History.

Additional information may be obtained by writing to the Director, Medical Historian Program, Box 3702, Duke University Medical Center,

Durham, N. C. 27710.

The Medicine and Public Policy Program. This program, which normally requires a maximum of five years to complete, is offered to meet the growing demand for persons who combine medical skills and training with a capacity for analytic public decision-making. It aims at training those persons with requisite talent to be leaders in the development and implementation of health policy at all levels of government. Such leadership might be provided as an elected or career public official, as a leader of medical professional organizations, or as a practicing physician or medical scholar active in public affairs.

Utilizing the faculty and resources of the School of Medicine and the Institute of Policy Sciences and Public Affairs, the program offers students a

multidisciplinary education that aims at providing:

1. A complete course of study in basic medical sciences and clinical training in the practice of medicine identical in scope and rigor with the education received by students enrolled in the Doctor of Medicine program alone;

2. Familiarity with the organization and financing of health services,

with particular focus on the economics and politics of health care;

3. An understanding of the political, bureaucratic, and social processes that define public problems and limit alternative approaches to their solutions;

4. A capacity for quantitative and logical methods of analysis useful in forecasting and appraising policy consequences and in evaluating existing policies;

5. An understanding of the uses and limitations of various analytic techniques and an awareness of the value considerations and ethical

choices implicit in particular policy alternatives.

During the first two years at Duke, students enroll in the normal course of study in the School of Medicine. In the third year, course work shifts primarily to the Institute. In the fourth year the student does most of his work in the School of Medicine and completes a client-oriented study of a particular problem in health policy. During the fifth year, students complete their requirements in the School of Medicine, at the completion of which they receive both the M.D. and M.A. in Public Policy Sciences degrees.

Admissions. Students may apply for admission to the Medicine and Public Policy Program concurrent with application to the School of Medicine

or during their first or second years.

Applications. Requests for applications and specific questions about the program should be addressed to: Director of Graduate Studies, Institute of Policy Sciences and Public Affairs, Box 4875, Duke Station, Durham, N. C. 27706.



The M.D.-J.D. Program. The School of Medicine and the School of Law of Duke University have jointly established a unique program of combined medical and legal education. The aim of the program is to provide to a small number of selected individuals the opportunity to acquire a full education in both medicine and law during a six year course of closely integrated study in the two fields. Upon satisfactory completion of the required course of study,

candidates will be awarded both the M.D. and J.D. degrees.

Objectives. The Duke M.D.-J.D. Program seeks to develop a new breed of dual professional who is well grounded both in law and medicine and who can function usefully in any one of numerous academic, governmental, or private professional capacities in areas of overlap between the two disciplines. Although the traditional meeting ground between law and medicine has been in the courtroom in connection with personal injury and malpractice litigation, entirely new areas of medical-legal interaction have developed in recent years. The program seeks to concentrate its interests and efforts in these emerging fields. The program will thus focus on the legislative and regulatory developments concerning various aspects of medicine and on the role of law in structuring health care delivery systems and in defining the rights and responsibilities of the participants therein. Another important area of concentration will be that of law and psychiatry.

Career Opportunities. The M.D.-J.D. Program will take a keen interest in its graduates and will assist them in finding ways of employing their special skills. It is considered likely that most graduates of the program will take a medical internship before electing a career role as either a physician or a lawyer, using his other professional training as a useful adjunct in the specialty selected. The program reflects the belief that promising career opportunities will be available to graduates of the program, especially in governmental

agencies and in universities.

Course of Study. The student in the M.D.-J.D. Program begins his six year course of study in the School of Medicine. As in the regular program for the M.D. degree, his first year is devoted to the basic medical sciences and the second year to the basic clinical disciplines. At this point the student enters the School of Law, where his first year curriculum is the same as that of other law students. During the next two years, he selects courses in the Law School which are of special application to his medical-legal interest, and his sixth and final year is spent in elective clinical work in the Medical School, which may be tailored to his specialized needs. In addition, the student will be required to complete additional elective basic science work amounting to eighteen hours or two summer sessions. His other summers will be unscheduled, but opportunities will be presented to engage in medical-legal endeavors suited to his developing interests.

Throughout the six year program the student will have available to him the counsel of faculty members of the two schools to help him in the selection

of courses and in the definition of his career objectives.

Eligibility. Applicants for the M.D.-J.D. Program must qualify for admission to both the School of Medicine and the School of Law and must submit separate applications to each school. In each separate application students must indicate their interest in the M.D.-J.D. Program. After acceptance for admission by both schools, applications for the program will be reviewed for approval by the Law-Medicine Joint Faculty Committee, which is composed of faculty members from the two schools. Personal interviews will be required.

Because of the special intellectual demands involved in mastering two professions, high standards will be applied in admitting students to the program. Students will also be evaluated on the basis of motivation and demonstrated interest and likely achievement in the fields relevant to the program's concerns.

In view of the highly specialized character of the field, it is anticipated that enrollment in the program will be limited. Probably no more than three

students will be accepted in any one year.

Financial Support. At the present time, no special financial aid is available to the students enrolled in the M.D.-J.D. Program. However, the regular loan and scholarship resources of the respective professional schools are available to students while they are enrolled. The program is of such a nature that students may find available support from special sources for their education in this field. The University will assist in seeking out such funds and will

support students in their applications.

Application Procedure. Applicants should apply to the School of Medicine, indicating on application forms that they wish to be considered for the M.D.-J.D. Program. All requirements for admission to the School of Medicine, including MCATs must be met. Applicants should also apply to the School of Law, indicating on these application forms that they wish to be considered for the M.D.-J.D. Program. All requirements for admission to the School of Law, including LSATs, must be met. Once an applicant has received unconditional admission to each school, a joint faculty Law-Medicine Committee will meet with the applicant to design an individual program of study. Additional information regarding the M.D.-J.D. Program may be obtained by contacting the Director, M.D.-J.D. Program, Duke University Medical Center, Durham, N. C. 27710.

The M.D.-M.H.A. Program. The objective of this program is to provide selected individuals with an opportunity to acquire education in both medicine



and health administration through a combined program of closely integrated courses over a five-year period. This program is designed primarily to train physicians qualified to assume leadership roles in the development and management of both existing and emerging health care delivery organizations. Emphasis is placed on the formulation, analysis, and evaluation of competitive and cooperative decisions and structures within the health care setting. A major advantage of the combined program is the completion of all studies in five years, instead of six to seven years required if both programs are taken sequentially.

Students undertaking this program enter the Department of Health Administration after the completion of their second year of medical studies. They then take the first three semesters of the basic M.H.A. curriculum, substituting only one course. Following this work, they return full time to the School of Medicine to complete their third and fourth years of medical studies. During these last two years they must take two additional three-hour courses in health administration. Other courses in the department, or from the Graduate School of Business Administration, may also be elected, but this is not required. During the summer between the third and fourth years of medical studies, the students spend full time in a special rotating administrative residency. The terminal year (fifth year) is devoted to completing the curriculum of the School of Medicine. Upon the successful completion of all studies, candidates are awarded both the M.D. and M.H.A. degrees.

Admission Procedures. Applicants must be qualified for admission to the School of Medicine and the Department of Health Administration. Interested students do not need to apply to the M.H.A. program before entering the

School of Medicine; they may do so any time prior to completing their fourth semester of medical studies. However, admission to the M.H.A. program following enrollment in the School of Medicine requires the concurrent approval of the School.

Application. Inquiries about this program and requests for application forms should be addressed to the Chairman, Department of Health Administration, Box 3018, Duke University Medical Center, Durham, N. C. 27710.

The M.D.-M.P.H. Program. Students enrolled in the School of Medicine, after satisfactory completion of the first two years of the regular curriculum, may request approval to seek a Masters of Public Health degree at the University of North Carolina, Chapel Hill, or at another approved institution. The program is designed to train physicians in epidemiology and in planning, administering, and evaluating health care delivery systems. Upon receipt of the degree, students are awarded a designated number of credits toward satisfaction of requirements for the M.D. degree at Duke.

For additional information interested students should contact the Chairman, Department of Community Health Sciences, Duke University School of

Medicine, Durham, N. C. 27710.

Postgraduate Education

Residencies. Appointments are from July 1 through June 30 with few exceptions. Residents receive stipends, professional liability insurance, disability insurance, life insurance, uniforms, and laundry of uniforms.

Residencies offered with the chairman or chief of each service are as follows:

| Anesthesiology | |
|---------------------------|---------------------------------------|
| Family Practice | (Program Director) William Kane, M.D. |
| Internal Medicine | (Chm.) James B. Wyngaarden, M.D. |
| Dermatology | J. Lamar Callaway, M.D. |
| Neurology | |
| Obstetrics and Gynecology | |
| Ophthalmology | |
| Pathology | |
| Pediatrics | |
| Pediatric Allergy | |
| Pediatric Cardiology | |
| Psychiatry | (Chm.) H. Keith Brodie, M.D. |
| Radiology | |
| Diagnostic Radiology | |
| Nuclear Medicine | |
| Therapeutic Radiology | |
| Surgery | |
| General Surgery | |
| Neurosurgery | |
| Oral Surgery | |
| Orthopaedic Surgery | |
| Otolaryngology | |
| Plastic Surgery | |
| Thoracic Surgery | |
| Urologic Surgery | |
| | |

Duke University Medical Center is a participating member of the National Intern and Resident Matching Program, 2530 North Ridge Avenue, Evanston, Illinois, and all first year applicants must register with this program. The hospital is a member of the American Hospital Association and approved by the American Medical Association for internship and residency training, and the Joint Commission of Accreditation of Hospitals.

Both men and women graduates of any Class A medical school are eligible for appointments. First year appointments are rarely available to graduates of medical schools outside the United States and Canada, but a limited number of residencies and research fellowships are available following certification by ECFMG (Educational Council on Foreign Medical Graduates, 1710 Orrington Avenue, Evanston, Illinois). All applicants will be considered without regard to race, color, religion, sex, or national origin.

The Durham Veterans Administration Hospital adjoins the Duke University Campus and is operated under the supervision of the Vice President's Committee of the Duke University Medical Center. The full-time professional staff of the V.A. Hospital are all faculty members of the School of Medicine. All training programs are integrated with corresponding programs at Duke University Medical

Center including rotation of house officers at each hospital.

All residents and clinical fellows are required to be licensed by the State of North Carolina. This may be accomplished by (1) a residency training license (fee \$10) that covers only training at Duke and it is not convertible to a full North Carolina license or (2) a full North Carolina license (fee \$100) that is a complete medical license obtained either by State Boards or National Boards and is fully reciprocal with other states for full licenses. Duke Medical Center cannot make applications for house staff. Since house staff members should have the license before beginning duties, arrangements for the license should be made in advance. For additional licensure information, contact Mr. Bryant Paris, North Carolina State Board of Medical Examiners, 222 North Person Street, Raleigh, N. C. 27601

Application forms and information for residencies or fellowships may be obtained by writing the chairman of the appropriate department, Duke University Medical Center, Durham, N. C. 27710.

Continuing Medical Education. Numerous formal postgraduate courses are given throughout the entire year for physicians in general practice as well as in all specialties. Conferences and tutorial seminars are also available to any physician who desires to attend and participate. Physicians in practice may make arrangements for a period of one day or more for courses tailored to their particular interests. These personal contacts with senior faculty and residents, including patient examinations as well as follow-up care, provide in-house training experience.

The annual one-week course held in Atlantic Beach in mid-July continues

to be one of the most well attended programs in the region.

For additional information, please contact William J. A. DeMaria, M.D., Associate Director. Continuing Education. Duke University School of Medicine, Durham, N. C. 27710.



Student Life



The University

Duke University, located in Durham, North Carolina, has an enrollment of 9,753 students from all fifty states and from many foreign countries. Currently, Trinity College of Arts and Sciences, the Graduate School, and the Schools of Business Administration, Divinity, Engineering, Forestry, Law, Medicine, and

Nursing constitute the University.

Durham, with a population of approximately 100,000, is in the Piedmont region of North Carolina, which has easy access to the sea coast and mountains. It is one of the three cities bounding the Research Triangle Park where numerous private research laboratories and governmental agencies are located. Duke University is twenty-five miles from North Carolina State University in Raleigh and eight miles from the University of North Carolina (UNC) in Chapel Hill.

Conduct of Students

Duke University expects and will require of all its students cooperation in developing and maintaining high standards of scholarship and conduct.

All students are subject to the rules and regulations of the University as are currently in effect or, from time to time, are put into effect by the appropriate

authorities of the University.

Any student, in accepting admission, indicates his willingness to subscribe to and be governed by these rules and regulations and acknowledges the right of the University to take such disciplinary action, including suspension and/or expulsion, as may be deemed appropriate, for failure to abide by such rules and regulations, or for conduct adjudged unsatisfactory or detrimental to the University.

Living Accommodations

Residence Hall Accommodations. The Graduate Center, located near the Duke Medical Center, houses 149 male graduate and professional school stu-

dents, 56 women graduate and professional school students, and 119 undergraduate women. All assignments are made on a first-apply, first-assigned basis.

The graduate women's section is located in the center and south wings of the second floor, whereas undergraduate women reside on the third floor. Women's sections are separate from the men's residential area. Resident counselors serve both men and women occupants and function with a house committee representing student residents.

The limited number of single rooms, located in the men's section, are usually reserved by previous occupants for the following academic year. Other rooms are equipped for two persons. Each double room is equipped with the following for each student: bed with innerspring mattress, chest with mirror, desk with chair, and book shelving.

Town House Apartments. Duke University operates Town House Apartments primarily for graduate and professional school students. Families and other groups are housed in individual apartments if the interests of the University are served. The setting of these apartments provides single graduate students a comfortable, home-like atmosphere free of all aspects of living inherent to residence halls. Each air-conditioned, two-bedroom apartment is furnished for use by three students.

Central Campus Apartments. Duke University is building a 500-unit housing facility which will be known as Central Campus apartments. Planned for completion in mid-1975, the complex will provide on an allocation basis housing for married graduate and professional school students, single undergraduate and graduate students, and single and married students in nondegree allied health programs.

For single students one-bedroom and two-bedroom apartments will be fully furnished. The apartments for married students will include a few furnished efficiencies and a number of one, two, and three-bedroom units in which the kitchen, living room, and first bedroom will be basically furnished. These apartments will be furnished and equipped in such a way as to provide economy and convenience to eligible married students while allowing for individuality. The monthly rental rates for each type of apartment are lower than those offered on the current housing market.

Off-Campus Housing. The Department of Housing Management maintains lists of rental apartments, rooms, and houses provided by Durham property owners or real estate agents who will agree not to discriminate in the rental property because of race, creed, or nationality of a prospective tenant. These lists are available in the department only. The Department of Housing Management will assist any member of the Duke community in seeking suitable off-campus housing; however, off-campus rental properties are not inspected or approved, nor does the University or its agents negotiate with owners for students, faculty, or staff.

Application Procedures. When a student is informed of his acceptance to the Medical School, he will also receive a form on which to indicate his preference for University housing. This form should be returned to the Medical School where it will be forwarded to the Department of Housing Management. Detailed information on the types of accommodations and application forms will be forwarded to the accepted student. However, if additional information is desired prior to a student's acceptance, please write to the Department of Housing Management, Duke University, Durham, N. C. 27706.

Dining Facilities. The Medical Center cafeteria serves students and employees. Other dining facilities located near the Medical Center are in the Union

Building, with two cafeterias and the Oak Room, and in the Graduate Center, with a cafeteria and coffee lounge. The lounge is open from 11:30 a.m. to 12:00 midnight. (Please refer to section on Dining Facilities in the chapter on Financial Information for approximate food costs.)

Services Available

Student Personal Advisory Program. One important objective of Duke University School of Medicine is to promote an informal, cordial student-faculty relationship. All entering students are given an opportunity to request a personal adviser who will be available to the student throughout his undergraduate medical training. Advisers are assigned from a group of faculty members who have volunteered to serve in this capacity.

Student Health Service. In recognition of the unique health needs of medical students whose activities bring them into far greater contact with communicable disease than the average university student, a special health program for medical students has been established. Each freshman will submit prior to entry the standard Duke History and Physical Examination form to be completed by his own physician. This will include urinalysis, hemoglobin, and serology. During orientation week freshmen students will be given an appointment to report to the Student Health Services for baseline immunizations to include smallpox, diphtheria-tetanus booster, polio booster, IPPD tuberculin test, and chest X-ray. The chest X-ray and IPPD will be repeated in the junior year. In the senior year each medical student will receive a complete physical examination including urinalysis, hemoglobin, IPPD, chest X-ray, and smallpox vaccination.

Since these services are in addition to those available through the Student Health Service, a special fee will be required of each medical student to cover the

extra cost over the four-year period.

Students receive ambulant care at the University Health Office during regular office hours.

The main components of the Health Service include the Student Health Clinic in the Marshall I. Pickens Rehabilitation Center, located at the corner of Trent Street and Erwin Road, and the Infirmary on the East Campus. For treatment of most illnesses or injuries, students should first contact the Student Health Clinic. Transportation may be made via the campus bus, or emergency transportation can be obtained from the Duke Campus Police or the Durham Ambulance Service.

The facilities of the University Health Services Clinic are available during both regular and summer sessions to all currently enrolled full-time students attending classes on Duke Campus. The facilities of the University Infirmary are available during the regular sessions only from the opening of the University in the fall until Graduation Day in the spring of all currently enrolled full-time students.

The resources of the Duke University Medical Center are available to all Duke students and their spouses and children. Charges for any and all services received from the Medical Center are the responsibility of the student as are the charges for services received from physicians and hospitals not associated with Duke University.

For emergency problems when the University Health Clinic is not open, the

emergency room at Duke University Medical Center is available.

The financial responsibility for expenses incurred in the emergency room rest with the student or his parents, though it is anticipated that most, if not all, such services will be covered under the Duke Student Accident and Sickness In-

surance Policy. This Duke Student Accident and Sickness Insurance Policy will cover only true emergencies necessitating treatment at the Hospital Emergency Room. The Emergency Room Business Office will assist in filing claims under this and other health insurance policies.

The Student Health Program does not provide health care for spouses and dependent children of married students. There are provisions in the insurance plan, however, for coverage of the married student's family. Pre-existing condi-

tions of dependent spouse and/or children are not covered.

Student Mental Health Service. The Student Mental Health Service is located in the Pickens Rehabilitation Center on Erwin Road. The service provides evaluation and brief counseling and/or treatment for matters ranging from questions about normal growth and development to the most serious psychiatric disorders.

Student Mental Health Service records are maintained separately and are not a part of any other record system, academic or medical. Contact with the

service is strictly confidential.

The Duke Student Accident and Sickness Policy. The Duke Student Accident and Sickness Insurance Policy is available at a reasonable charge. The supplemental coverage provides coverage for hospitalization and major medical expenses. The policy is more fully described in a brochure sent through the Bursar's Office.

Vacations and Free Quarters. All students should take note that the Student Health Service does not provide care during quarters for which fees and tuition

are not being paid.

The supplemental health insurance plan is designed to complement services normally available to students through the University Student Health Service in order that they may be protected at times when the service does not apply and for accidents and sickness which it does not cover. This plan provides protection twenty-four hours per day during the full twelve-month term of the policy for each student insured. Students are covered on and off the campus, at home, or while traveling between home and school, and during interim vacation periods.

Information concerning the availability of additional health care may be obtained from the Student Health Service. These rules and regulations are those in effect at the time of publication of this document, but are subject to change

at a later date.



Student and Professional Organizations

Alpha Omega Alpha. Alpha Omega Alpha Honorary Medical Fraternity was organized nationally in 1902 and the Duke Chapter (North Carolina Alpha) was chartered in 1931. The aims of this society are the promotion of scholarship and research in medical schools, the encouragement of high standards of character and conduct among students and graduates, and the recognition of high attainment in medical science, practice, and related fields. Students who have demonstrated leadership and academic promise of future achievement are elected. Membership is limited to no more than one-sixth of any class and of these as many as one-half may be elected in the junior year. Honorary membership in the fraternity, as well as honorary alumni and faculty membership, may also be conferred upon certain physicians who have distinguished themselves in the various areas of medical teaching, research, and practice.

Davison Society. All medical students are dues-paying members of the Davison Society which is governed by elected officers and class representatives composing the Davison Council. The Society acts in several capacities by: developing projects, providing student representation on Medical Center and University committees, and organizing extracurricular, educational, and social events for students and faculty.

In the way of community projects, the Davison Society helps sponsor and support the Edgemont Clinic, a free clinic run by medical, nursing, pharmacy, and other students from Duke and UNC; a two-week Durham County junior high school program in sex education; a parallel program in drug education; and

various community health education and organizational programs.

The Davison Society functions as the official representative body for Duke medical students, and as such nominates or elects students to serve on all appropriate Medical Center and University committees including MedSAC, MEPAC, Admissions, Curriculum, Judiciary, Directors' Hour, Faculty/Chairman Search, Library, Human Experimentation, and several other committees. Recommendations by students have recently helped institute changes in the grading system, to a honors/pass/fail system with written evaluations; have led to the incorporation of a seven-week "Interterm" before the second year to better prepare students for their clinical rotations; and have resulted in the development of standardized, computerized course evaluation questionnaires which are administered through the Davison Society.

The Society also acts as the local chapter of both the Student American Medical Association (SAMA) and the North Carolina Medical Society (NCMS). Student representatives are appointed to attend the annual meetings of SAMA, NCMS, AMA, Association of American Medical Colleges (AAMC), the Southern Medical Association (SMA), and other national meetings of importance to medical students. Students have been sponsored by the Davison Society to attend recent meetings of the National Board of Medical Examiners, the Congress on Medical Education, the AMA Congress on Medical Ethics, and the Student Na-

tional Medical Association annual meeting.

Within the student body the Society publishes a student directory and a weekly newsletter. Socially, the society sponsors the annual student-faculty basketball game, the annual Medical School show, departmental beer and pretzel hours, beer and pizza dinners, and individual class parties and picnics.

The Davison Society is proud to have been recognized nationally as a prototype for student organizations, locally for its degree of community involvement, and within the Medical Center for its instructive contributions.

The Student National Medical Association, Inc. The Student National

Medical Association (SNMA) is a national organization composed of medical students. The organization was established in 1964 and now has chapters at

eighty of the American medical schools.

The purposes of the Student National Medical Association are: (1) to create an atmosphere wherein professional excellence and moral principles can find fullest expression, (2) to disseminate information relative to minority problems within the field of medical education, (3) to take necessary and proper steps to eradicate prejudicial practices in the field of medical education and related areas as these practices appear to be based on race, creed, color, sex, or national origin, (4) to develop workable programs for the implementation of better urban and rural health care, (5) to provide national leadership in the promulgation of legislative policies for the provision of better health care, (6) to sponsor programs for minority youth to encourage their entrance into the health professions, and (7) to raise the levels of Black student recruitment, admissions, and retention in schools training health care professionals.

The Engel Society. The Engel Society, established in 1966 as a memorial to Professor Frank L. Engel, is designed to promote intellectual and social interaction between students and faculty. Membership is limited to six junior students and six senior students who have demonstrated an inquisitive nature, interest in their fellow man, and high scholastic ability. Four faculty members are selected annually by members of the society for three-year terms. Six dinner meetings with guest speakers are held each year. Other students may be invited to participate.

Ganglion Society. The Ganglion Society (the Duke neuroscience society) seeks to promote interest in the neurosciences and to facilitate communication among individuals studying and working in this multidisciplinary field. To accomplish this, the Society publishes The Neurotransmitter, a weekly bulletin of local events in the neurosciences, both basic and clinical. It also sponsors informal evening discussion sessions featuring visiting scientists and clinicians prominent in one or more areas of the neurosciences. Membership and participation in these activities is open to anyone with an interest in the neurosciences.

Duke University Medical Alumni Association. The Duke Medical Alumni Association currently consists of over 5,000 members including all graduates of the Medical School, past and present faculty, and all past and present house officers of Duke Hospital including those who are not Duke Medical School graduates. Associate membership is available to alumni of other Medical Center programs. A quarterly newsletter is sent to all members each year. Around clusters of five-year classes, November reunions are held annually in Durham. Alumni groups have been organized in several states where luncheon and dinner meetings are held following the American Medical Association, the Southern Medical Association, the North Carolina Medical Society, the Medical Society of Virginia, the American Academy of Pediatrics, and several departmental specialty society meetings.

Officers. President: Herbert T. Dukes, M.D., 1955, Pensacola, Florida; Secretary-Treasurer: Jay M. Arena, 1932, Durham, North Carolina

Awards and Prizes

Davison Scholarship. The Davison Scholarship award consisting of \$1,000 was formerly donated by the late Dean Wilburt C. Davison. The award is now supported by the Davison Club in the memory of Dean Davison and is awarded to enable a medical student to participate in a clinical science elective outside the United States. Any student may apply for the award.



Thomas Jefferson Award. This award, consisting of \$100, a certificate, and a book, recognizes students who make outstanding contributions to the University or to fields which have not been traditionally confined to science and medicine.

Lange Medical Publications Awards. Two seniors selected by participating medical schools for excellence in their work are awarded four books, published by the Lange Medical Publications. The books are selected by individual recipients.

The Joseph Eldridge Markee Memorial Award in Anatomy. Donated by the friends and family of the late Dr. J. E. Markee, James B. Duke Professor of Anatomy and Chairman of the Anatomy Department from 1943 to 1966, and consisting of a certificate, medallion, and cash award of \$200, the award is presented by the Department of Anatomy to the most outstanding student in anatomy during the first year of medical school.

C. V. Mosby Book Award. Each class president is presented a certificate to select a Mosby book not to exceed \$30.

Roche Award. This award is a gift from the Roche Laboratories and is presented to one member of the senior class for outstanding achievement during his career in medical school.

Trent Prize. An annual award of \$100 is given to a Duke medical student for the best essay on any topic in the history of medicine and allied sciences. Mrs. Mary Trent Semans established this award in memory of the late Josiah C. Trent to encourage students to undertake independent work in the history of medicine and to utilize the resources of the Trent Collection.

Upjohn Award. The award consists of \$200 cash and a certificate, which is presented to a Duke medical student for the best essay, considered on a competitive basis, discussing some social, cultural, or economic aspect of health.



Admission



Admission Procedures

Good study habits, intelligence, character, and integrity are essential qualifications for admission. Beyond this, premedical students should strive for an education that develops abilities to observe critically, think analytically, and work independently. Though a knowledge of basic scientific principles should be secured, the competence with which a premedical student conducts his undergraduate career is of more importance than the specific subjects which he studies.

Application for Admission. Application forms for the Duke University School of Medicine may be obtained by writing the Committee on Admissions, Box 3710, Duke University Medical Center, Durham, N. C. 27710. Prior to August 1, all requests for application materials will be assigned to a mailing list. The materials will be forwarded during the first week in August. The deadline for receipt of application requests is October 15, and the deadline for receipt of applications is November 1.

Requirements. Admission to the School of Medicine requires a minimum of 90 semester hours of approved college credit including one year of college English (consisting primarily of expository English composition), one year of inorganic chemistry, one year of organic chemistry, one year of physics, one year of biology and/or zoology, and one year of calculus. All science requirements must be completed not more than seven years prior to entrance.

The Medical College Admission Test, administered by the Medical College Admission Test Office, Association of American Medical Colleges, One Dupont Circle, N.W., Washington, D.C. 20036, is required of all applicants. This test is given in May and October of each year at numerous colleges throughout the United States. Students should consult their premedical advisers and arrange to take this test in May of the year they plan to submit applications for admission.











Selection

Selection is made between September 15 and March 15 for students entering the following September. Data on each candidate are carefully evaluated by the Committee on Admissions. If the distance is not too great, a personal interview will be conducted at Duke for those students with satisfactory credentials. Other candidates will be referred for personal interviews with regional representatives of the Admissions Committee. Those candidates who demonstrate the most promise for exceptional performance in their future practice of medicine are admitted on the basis of merit without regard to race, color, religion, sex, or national origin and are notified as soon as possible whether or not they have been accepted. In order to ensure enrollment, accepted candidates must return a signed agreement and a fifty dollar deposit within three weeks after notification. Inasmuch as admission is offered a considerable period in advance of matriculation, it is provisional upon the successful completion of remaining required premedical college courses.

Transfer

Applicants who have completed two years in any of most of the American and Canadian medical schools will be considered for transfer only as space permits. Such transfer students are required to complete the second and fourth years of the Duke curriculum. For transfer, completion of Part I of the National Board Examination is required as evidence of satisfactory completion of subjects

taught in the first two years of most North American schools.

A limited number of transfer students from foreign medical schools may be admitted each year. Such students should have completed their preclinical training and must complete Part I of the National Board Examination. If space permits, these students will be admitted as members of the sophomore class and rotate in the clinical departments. They will be required to complete the junior and senior years, composed of electives in clinical and preclinical sciences. By attending two summer sessions, a transfer student from a foreign medical school can earn his M.D. degree from Duke University approximately two and one-half years after matriculation.

Transfer application materials must be requested by February 15 of the year of anticipated transfer. The deadline for the receipt of completed applications is March 15 of the same year. Competitive applicants will be sponsored for Part I of the National Board Examinations given in June of that year as part of the eval-



uation procedure. Upon receipt of the results of this examination, personal interviews will be arranged for those with satisfactory credentials.

Transfers into the freshman or senior year are not permitted.

Advanced Placement

Advanced placement is offered to qualified freshman students on an optional basis for the following first semester courses: anatomy, biochemistry, genetics, and physiology. Students desiring consideration for advanced placement are required to take examinations in applicable subjects during the first week of medical school. Those who are granted and accept advanced placement for a specific course are not required to enroll in that course but will be responsible for arranging mutually satisfactory substitutions with the appropriate department chairman.

Students who have been awarded Ph.D. degrees in biomedical or preclinical sciences may apply for a three-year program to obtain their M.D. degrees. This program consists of the regular core basic science courses required of all freshman medical students, core clinical rotations during the second year, followed

by senior class clinical electives.

Summary

Three years of college work, twenty-five dollars (\$25) nonrefundable application fee, fifty dollars deposit (\$50) within three weeks of notification of acceptance, and the Medical College Admission Test are required. The number of students in the 1975-1976 freshman class is 114.

Applications for admission must be received between August 1 and November 1, 1975. Students will be notified between October 27, 1975 and March 15, 1976. Freshman classes begin September 7, 1976.

Roster of Regional Representatives of Admissions Committee

Alabama: Birmingham, Ben V. Branscomb; Selmo, Havner H. Parish, Jr.

Alaska: Anchoroge, Milo H. Fritz

Arizona: Phoenix, Robert H. Barnes; Scottsdole, Boyd Metcalf Arkansas: Little Rock, Rosalind Smith Abernathy, E. Clinton Texter, Jr.

California: Berkeley, H. I. Harvey; Beverly Hills, Ben Kohn; Los Angeles, Douglas F.

Smiley; Menlo Pork, Victor S. Constantine, Gustave Freeman; Polo Alto, James B. Golden; Son Bernardino, Irving E. Allen; Son Francisco, John E. Cann, R. Gray Patton, Clifford J. Schostal; Son Moteo, Lester H. Margolis; Sonto Monico, George Hayter; Stonford, Bruce Horten; West Covino, Jeremiah

W. Kerner; West Los Angeles, James L. Scott

Canada: Montreol, J. E. Gibbons; Ottowa, John B. Armstrong Colorado: Denver, John Ray Pryor, Fred W. Schoonmaker

Connecticut: Hortford, William H. Glass, Louis Spekter; New Hoven, Clarence D. Davis,

Saul A. Frankel, Joseph Mignone, Ned M. Shutkin

District of

Columbia: Woshington, Linda E. Green

Florida: Boco Raton, Eugene L. Horger; Goinesville, Lamar H. Crevasse, Joseph W.

Shands, Jr.; Jocksonville, David W. Brooks, Jr.; Lokelond, John Verner, Jr.; Miami, James J. Hutson, David H. Reynolds; South Miomi, Stanley J. Cannon;

St. Petersburg, David S. Hubbell; Tompo, Richard G. Connar

Georgia: Atlonto, James C. Crutcher Germany: Berlin, Otto H. Gauer

Hawaii: Honolulu, Richard K. Blaisdell, James G. Harrison, Jr.; Koiluo, Stanley Karansky

Idaho: Boise, William L. Venning; Idaho Folls, Reid H. Anderson

Illinois: Chicogo, James S. Arnold, George H. Gardner, Daniel J. Pachman, Earl N.

Solon; Evanston, Donald R. Mundie, Milton Weinberg, Jr.; Genevo, Charles A.

Hanson; Monmouth, Kenneth E. Ambrose

Indiana: Angolo, Norman W. Rausch; Columbio City, John L. Vogel; Indianapolis,

Norman H. Bell, John D. Graham

lowa: Davenpart, Alexander W. Boone, Jr.; Des Maines, Charles W. Latchem
Kansas: Emparia, Gauld C. Garcia; Salino, Roy B. Coffey; Wichita, Thor J. Jager
Kentucky: Lexington, Kearns R. Thampson; Louisville, Billy Franklin Andrews,

George Uhde

Louisiana: New Orleans, Richard H. Corales, Jr., Harald M. Horack, Richard M. Paddison

Maine: Portland, E. Charles Kunkle

Maryland: Baltimore, John T. King, C. Edward Leach; Towson, William C. Battle

Massachusetts: Boston, Raymond D. Adams, James H. Currens, Ellison C. Pierce, Jr., Michael Steer, James L. Tullis; Brookline, James H. Austin, Dorothy A. Elias; Newton

Highlands, Janathan Freeman; Springfield, George A. Sotirion

Michigan: Ann Arbor, George E. Bacon, Donald L. Rucknagel; East Lonsing, Norbert Enzer; Grosse Pointe, Robert F. Kandel; Port Huron, William T. Davison

Minnesota: Minneopolis, Lewis W. Wannamaker; Rachester, Richard E. Symmonds
Missouri: Columbio, John T. Logue; St. Louis, Thamas B. Ferguson, Roman L. Patrick

Nebraska: Beotrice, R. Brown

New Hampshire: Hanover, George Margolis, R. J. Vanderlinde

New Jersey: Montclair, Benjamin B. Burrill; New Brunswick, William E. McGough, Bernard

A. Rineberg

New Mexica: Alburquerque, Robert Proper; Artesio, C. Pardue Bunch

New York: Buffalo, Oliver J. Bateman; Eost Rockowoy, Vincent A. Joy; Endicott, Vincent Giordana; Hornell, Gordon Stenhause; Ithoca, John G. Maines; Lockport, Frank H. Crosby; New York, William A. Gay, Jr., David S. Goldman, Eddie C.

H. Crosby; New York, William A. Gay, Jr., David S. Goldman, Eddie C. Haover, Seymour R. Kaplan, Michael J. Lepore, Robert S. Porro, Richard A. Ruskin, Leonard H. Schuyler, Robert A. Shimm, Patricia Winchester; Pittsford, Rufus S. Bynum; Rochester, William L. Sutton; Syrocuse, Alfred S. Berne,

Herbert Lourie, James E. Sheehy

Ohio: Cincinnati, Murray B. Sheldon, Jr.; Clevelond Heights, Robert B. Kubek; Columbus, Robert J. Atwell, Charles A. Doan, Lucy R. Freedy, George W.

Paulson, James V. Warren; Doyton, Stuart R. Ducker; Elyria, William L. Hassler;

Toledo, George F. Alter, William A. Phillips

Oklahoma: Muskogee, Robert H. Gibbs Oregon: Portland, Joseph F. Paquet

Pennsylvania: Bethlehem, Ralph K. Shields, James G. Whildin; Bryn Mawr, John V. Blady;

Comp Hill, Alfred J. Sherman; Daylestown, Zachary A. Simpson; Dunmore, Louis C. Waller; Harrisburg, Earl S. Moyer; Jahnstown, W. Frederick Mayer; Philadelphio, Clifford David, Max W. Fischbach, Alfred M. Sellers; Pittsburgh,

H. V. Murdaugh, Jr., Jack D. Myers; Williamsport, William R. Brink

Puerto Rico: Sonturce, Rafael Hernandes-Saldana Rhode Island: Providence, Richard P. Sexton

South Carolina: Charleston, Edward F. Parker; Calumbia, Ben N. Miller, James M. Timmons;

Greenville, Raymond C. Ramage

Tennessee: Chottonoogo, Richard Van Fletcher; Knoxville, Alan Solomon; Memphis,

William L. Byrne; Noshville, Walter G. Gobbel, Jr., Alexander C. McLeod,

Greer Ricketson; Sewonee, Henry T. Kirby-Smith

Texas: Austin, Francis A. Morris, Jr.; Dallos, Reuben H. Adams, W. Crockett Chears,

Jr., A. James Gill, William Shapiro; Fort Worth, Henry L. Burks; Golveston, R. H. Rigdon; Houston, Elizabeth Balas Powell, H. Grant Taylor; Midlond,

Dorothy B. Wyvell; San Antonio, Royall M. Calder Solt Lake City, C. Hilmon Castle, Andrew Deiss

Vermont: Burlington, Edward S. Horton

Utah:

Virginia: Richmond, R. Lewis Wright; Waynesboro, Thomas L. Gorsuch

Washington: Seattle, A. Lawrence Banks, Lois Hale Watts

Wisconsin: La Crosse, C. Norman Shealy; Milwaukee, Jack L. Teasley



Financial Information



Fees and Expenses

Tuition. The following table represents an estimate of a student's necessary expenses in the School of Medicine. The total of these figures suggests a basic minimum budget of approximately \$6,035. Allowances for recreation, travel, clothing, and other miscellaneous items must be added to this estimate with allowances for individual needs and tastes.

| Tuition | \$3,400.00 | |
|--|------------|--|
| | | |
| Accident and Sickness Insurance (Subject to change) | 37.00 | |
| Instruments* (First year only) | 260.00 | |
| Laboratory Fee (Includes microscope rental, first year only) | 150.00 | |
| Uniforms | 66.00 | |
| Annual cost of books: first year | 335.00 | |
| second year | 150.00 | |
| third and fourth year | 200.00 | |
| Lodging (3 students per 3 bedroom apartment - University | | |
| housing) | 990.00 | |
| Board (University Dining Halls): first and second year | 1,212.00 | |
| third and fourth year | 1,008.00 | |
| Student Health Service† (First year only) | 60.00 | |
| Student Government (Davison Society) | 15.00 | |
| Motor Vehicle Registration | 20.00 | |

^{*}Sphygmomanometer, ophthalmoscope, otoscope, and other equipment required of each student must conform to rigid standards.

There are four dates in each academic year when approximately one quarter of the total tuition becomes payable. These dates apply whether a student is in the first year (2 semesters), or on 8-week terms. The dates for

[†]Mandatory fee. For details, please refer to Student Health Service.



the 1975-1976 academic year are Friday, August 29, 1975, October 24, 1975, January 9, 1976, and March 5, 1976. An additional billing will be made to those who elect to attend the summer terms.

The Office of the Bursar will send bills as a reminder of the exact amount payable to the University. A late fee of \$25 will be assessed for any portion of the tuition and other charges that remain unpaid and for which prior arrangements have not been made with the Bursar's Office. In the event of death, or involuntary withdrawal to enter the armed services, refunds will be made on a pro rata basis. In all other cases of withdrawal, students or their parents may elect to have tuition and room and board charges refunded or carried forward as a credit for later study, according to the following schedule:

1. Withdrawal before the beginning of classes: full refund.

2. Withdrawal during the first or second week of classes: 80 percent.

3. Withdrawal during the third, fourth, and fifth week of classes: 60 percent.

4. Withdrawal during the sixth: 20 percent.

5. No refunds after the sixth week.

6. Tuition or other charges paid from grants or loans will be restored to those funds, not refunded or carried forward.

No credit will be given for any term in which the tuition has not been paid, whether the work has been at Duke or elsewhere. A student is not eligible to attend classes or to make use of University facilities if he is in default of payment of funds owed the University. Nonreceipt of a bill does not exonerate the student from payment or from assessment of late fees. It is not advisable for students to attempt outside work to defray their expenses during the academic year. Spouses of medical students desiring employment may secure information from the Medical Center Personnel Office or the Duke University Personnel Office.

Debts. No records are released and no student is considered by the faculty as a candidate for graduation until he has settled with the Bursar for all indebtedness.

Living Accommodations

Housing Fees. The charge for each person in a double room for the academic year is \$451 in the Graduate Center. Single rooms are reserved for

returning students.

The residential fee for Town House Apartments and Duke Modular Homes is \$691 per person for the academic year on the basis of three students to an apartment. Utility charges are not included in these fees. Cost of utilities, except water, will be shared by occupants in these apartments.

Housing fees are subject to change prior to the 1975-1976 academic year.

A \$50 deposit is required on all reservations.

Rates for Central Campus Apartments were not adjusted to meet financial requirements at the time of printing of this *Bulletin*. Rates will be quoted to applying students upon request to the Manager of Apartments and Property. Refunds on housing fees will be made in accordance with the University's established schedules.

Dining Facilities. If a student dines on the Duke University campuses, the cost of food for the academic year will average approximately \$1,100-\$1,300. Prices are the same in each of the University-operated dining facilities.

Motor Vehicle Registration

Each motor vehicle operated on Duke University campuses by students enrolled in the School of Medicine must be registered at the Medical Center Traffic Office, 314 Bell Building, within five days after operation on the campus begins, and thereafter must display the proper registration decal.

All students must pay an annual fee of \$20 for each four-wheeled motor vehicle and \$10 for each motorbike or motor scooter registered. Bicycles are registered free of charge at the Public Safety Department, 2010 Campus Drive.

To register a vehicle, the student must present the following documents: (1) valid state registration for vehicle registered, (2) valid state operator's license

Parking, traffic, and safety regulations will be given each student at the time of registration of his vehicle(s). Students are expected to abide by these regulations.

Financial Aid

The Duke University School of Medicine makes financial assistance available to accepted students who, due to economic circumstances, could not otherwise attend the University. The school recognizes, however, the responsibility of the individual and that of his family to provide funds to achieve the objective of a medical education. Thus, the school does not consider that a parent has discharged the full financial obligation for the continuing education of his son or daughter upon the latter's completion of the undergraduate degree.

Financial assistance is available in a combined form of scholarships and

loans, and all awards are made on the basis of demonstrated need.

Financial Assistance to Incoming Freshmen. When the medical school applicant receives a letter of acceptance into Duke University School of Medicine, a financial aid application is included if the student has indicated an interest in assistance on his application for admission. The economic

circumstances of the student have no bearing on whether the student is

accepted into the Medical School.

The student requesting financial aid is expected to work during the summer preceding entrance into medical school and to save part of his earnings to defray part of his first-year expenses.

The student's need must be established before an award can be made. The Office of Financial Aid therefore requires the Duke University application for

financial aid and a computation from the GAPSFAS application.

Applications for aid received in the fall will be reviewed in December, and applicants will be informed of decisions in late December. Applications received after December will be processed as received.

Financial Assistance to Upperclassmen. Annual reapplication is required of all scholarship and loan recipients. Upperclassmen seeking financial assistance for the first time should consult with the Coordinator of Financial Aid.

Scholarships. Income from the following endowed scholarship funds is available:

Germain Bernard Scholarship, established in 1959 by the B.C. Remedy Company.

Thomas C. Bost Scholarship, established in 1965 by gift from Dr. Thomas

C. Bost, supplemented by subsequent gifts.

James L. Clark Memorial Scholarship, established in 1965 by a gift from Mr. and Mrs. Marvin D. Clark and supplemented by gifts from other donors.

C. T. Council Scholarship, established in 1959 by the B.C. Remedy

Company.

William F. Franck Memorial Scholarship, established in 1958 by gift from William F. Franck, Jr. '39, and supplemented by additional gifts.

B. Everett Jordan Scholarship, established in 1974 by the late Senator

B. Everett Jordan and his widow, Mrs. Katherine Jordan.

Dr. John Haden Lane Memorial Scholarship, established in 1968 by gift from Edward H. Lane Foundation.

Medical Alumni Scholarship, established in 1974 by Duke Medical Alumni. Medical School Faculty Wives Scholarships, established in 1968 by gift from the Medical School Faculty Wives whose source of proceeds is the Nearly New Shoppe.

Physical Medicine Scholarship, established in 1963 by gift from Central

Carolina Convalescent Hospital, Inc., Greensboro, North Carolina.

Francis and Elizabeth Swett Scholarship, established in 1966 by gift from the late Dr. and Mrs. Swett.

Dr. Hillory M. Wilder Memorial Scholarship, established in 1962 by bequest from Celeste Wilder Blake and Kenneth M. Blake.

Sue Eggleston Woodward Memorial Scholarship, established in 1966 by

gift from parents, relatives, and friends.

Other Scholarships available to students are: Avalon Scholarships; Virginia H. Baxter Memorial Scholarship; Mary Duke Biddle Scholarships; Duke Hospital Medical Auxiliary Scholarships; Duke University School of Medicine Scholarships; State of North Carolina (tuition remission up to \$1,500); Slane Family Scholarship; Sigmund Sternberger Scholarships; U.S. Health Profession Scholarships and Lettie P. Whitehead Scholarships.

Loans. University loans are available under the specific restrictions of the loan funds and are awarded on the basis of financial need. Some of them are: W.K. Kellogg Foundation Loan Fund, Seaborn L. Hardman Loan Fund,







Medical Freshman Tuition Loan, Scott Loan Fund, Charles W. Banner Loan Fund, Albert Anderson Loan Fund, and W. N. Reynolds Loan Fund.

The Robert Wood Johnson Foundation Student Aid Program provides loans under specific restrictions for medical students. Demonstrated need is required.

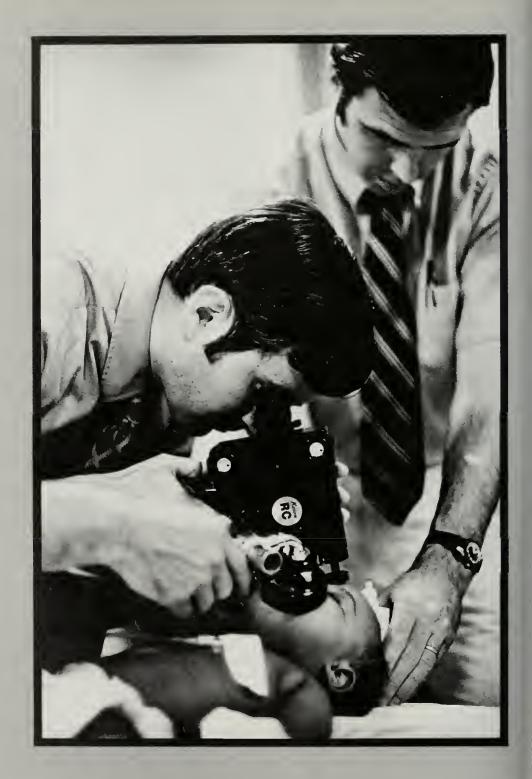
U. S. Public Health Service Health Professions loans are available to United States citizens on the basis of demonstrated financial need.

The Francis and Elizabeth Swett Loan Fund is an emergency loan available in small amounts to any medical student on a no-interest basis for a short period of time.

Federally insured guaranteed loans up to \$2,500 are available to full-

time students at Duke University, which is an approved lender.

Additional information may be obtained by writing Mrs. Nell Marshall, Coordinator of Financial Aid, Duke University Medical Center, Durham, N. C. 27710.



Courses of Instruction



Anatomy

Professor: J. David Robertson, M.D. (Harvard, 1945), Ph.D. (Massachusetts Inst. of Tech., 1952), Chairman.

Professors: John W. Everett, Ph.D. (Yale, 1932); Montrose J. Moses, Ph.D. (Columbia, 1949);

Talmage L. Peele, M.D. (Duke, 1934).

Associate Professors: Matthew Cartmill, Ph.D. (Chicago, 1970); Sheila J. Counce, Ph.D. (Edinburgh, 1954); Kenneth L. Duke, Ph.D. (Duke, 1940); William L. Hylander, D.D.S. (Illinois, 1963), Ph.D. (Chicago, 1972); William Longley, Ph.D. (London, 1963); Michael K. Reedy, M.D.

(Washington, 1962).

Assistant Professors: Mark R. Adelman, Ph.D. (Chicago, 1969); Frank H. Bassett, III, M.D. (Louisville, 1957); Jan A. Bergeron, V.M.D. (Pennsylvania, 1966); Charles A. Blake, Ph.D. (California at Los Angeles, 1972); Joseph M. Corless, M.D., Ph.D. (Duke, 1972); Harold P. Erickson, Ph.D. (Johns Hopkins, 1968); William H. Fletcher, Ph.D. (California at Berkeley, 1971); William C. Hall, Ph.D. (Duke, 1967); Kurt E. Johnson, Ph.D. (Yale, 1970); Richard F. Kay, Ph.D. (Yale, 1973); M. Stephen Mahaley, Jr., M.D., Ph.D. (Duke, 1959); Timothy L. Strickler, Ph.D. (Chicago, 1973); E. Lee Tyrey, Ph.D. (Illinois, 1969).

Associates: Arthur C. Chandler, Jr., M.D. (Duke, 1959); Jane S. Richardson, M.A. (Harvard,

1966).

Lecturer: Irving T. Diamond, Ph.D. (Chicago, 1953). Senior Research Associate: Juan A. Vergara, M.D.

Research Associates: Joseph M. Costello, Ph.D.; A.T.C. Carpenter, Ph.D.; Janet A. Hall, M.S.; David N. Jacobson, Ph.D.; Guido A. Zampighi, D.D.S.

Required Courses

During Term 1, first year students are required to take Gross Anatomy (ANA-200), Microanatomy (ANA-201), and Neuroanatomy (ANA-202). All instruction is designed to be informal and individualized. The general principles and functional viewpoint of living anatomy are emphasized and, whenever possible, fresh tissues and living cells are used.

*An asterisk placed before the course number indicates that the course is also offered in the Graduate School.

ANA-200. Gross Anatomy. Students dissect the entire human body except the brain. Formal classroom lectures relate structures of the human body to their developmental and phylogenetic antecedents and the clinical significance of anatomical facts. Informal lectures are presented to small groups. Filmed lectures and prosections are available to students for laboratory and library study.

ANA-201. Microanatomy. Students are introduced to the histology, cytology, and cell biology of the major tissues of the human body. This will include an introduction to light and electron microscopy, X-ray diffraction, and polarization optics as applied to structural organization in various tissues and organs. Biochemical, biophysical, and genetic cytology, as well as muscle and membrane structure, will be presented in detail.

ANA-202. Neuroanatomy. Neuroanatomy and neurophysiology are taught concurrently to correlate these fields. Patients will be presented by faculty members in clinical neurology and neurosurgery. The major portion of the course is organized by systems, e.g., sensory, visual, auditory, olfactory, and motor, including cerebellar, autonomic, hypothalamic, and limbic mechanisms.

Electives

ANA-206(B). Anatomy of Back and Extremities. Complete dissection of back and extremities, including pectoral and pelvic girdles. Visual aids will be used extensively. Course planned for orthopaedics, general practice, or neurosurgery. Terms: 3 or summer. Weight: 3. Bassett

*ANA-208(B). Anatomy of the Trunk. Emphasis will be on the anatomy of the thoracic, abdominal, and pelvic organs, and their blood supply, innervations, and relationships. The dissections will be augmented by use of prosections, motion pictures, and prerecorded television presentations. Course planned for general practitioners, specialists in surgery and internal medicine. Term: 3. Weight: 2. Duke

*ANA-215(B). Contractile Processes. Cellular and molecular bases of activity in cilia and skeletal, cardiac and smooth muscle; submicroscopic structure and behavior of muscle; electrical and ionic properties of muscle membranes; the problem of electro-mechanical coupling; mechanics and thermodynamics of muscular contraction; biochemical energies of contraction; modern methods and problems in contractility research. Also listed as *PHS-216(B). Terms: 1 and 2. Weight: 3. Jobsis, Johnson, Anderson, and Reedy

*ANA-217(B). Structure and Function of Visual Photoreceptors. A detailed study of available structural, biochemical, spectroscopic, and physiological data from retinal photoreceptors. Emphasis on molecular structure of vertebrate photoreceptor membranes, effects of bleaching on rhodopsin molecules, and initiation of neural information after photon absorption. Format to combine lectures, seminars, and demonstrations. Course material will complement Anatomy 276. Terms: 1 and 2. Weight: 3. Corless

ANA-224(B). Tutorial in Gross Anatomy. A detailed review of selected regions of the human body in the context of the "core" Gross Anatomy sequence. Student will plan, with staff, prosections, special presentations, etc. Students will elect to study one or more selected regions, in consultation with the staff. Terms: 1 and/or 2. Weight: 1-5. Hylander and Staff

*ANA-231(B). Human Evolution. Evolutionary biology of the primates.

Anatomical and behavioral adaptations of fossil and living primate populations including Homosapiens. Terms: 3 and 4. Weight: 3. Cartmill

ANA-256(B). Surgical Neuroanatomy. This course will utilize gross brain and spinal cord specimens, the skull, angiograms, X-rays, pneumoencephalograms, and myelograms to correlated neurosurgical diseases and procedures with functional areas of the nervous system. Terms: 1, 2, 3, or 4. Weight: 1. Mahaley

ANA-260(B). Developmental Systemic Anatomy. A survey of all major systems or concentration on selected ones will be presented, depending on interests of students. Dated rat embryos, supplemented by primate material, will be used to follow the development of organ systems. Term: 3. Weight: 3. Duke

*ANA-276(B). Neuroanatomical Basis of Sensory Physiology. Original papers are read and discussed which are concerned with the neuroanatomical substrates underlying sensory processing in the auditory and visual systems. (Also listed as Psychology 276 in Graduate School Bulletin.) Terms: 3 and 4. Weight: 3. Hall

*ANA-280(B). Structure and Assembly of Macromolecules. Lectures and conferences on the structure of biological macromolecules and on the mechanisms of assembly of organized macromolecular aggregates such as are found in viruses and cellular organelles. Emphasis on the results of electron microscopic, X-ray diffraction, and optical analyses. (Spring, 1977, and alternate years thereafter.) Terms: 3 and 4. Weight: 3. Longley, Adelman, Corless, Erickson, Moses, Reedy, and Robertson

*ANA-286(B). The Light Microscope, the Electron Microscope, and X-ray Diffraction in Biology. Lectures and laboratories on methods of ultrastructure research. Fundamentals of optics; the light microscope, phase, polarizing, and interference microscopy. Basics of electron microscopy, staining, sectioning, and replication techniques. Optical and computer image processing. Introduction to X-ray diffraction theory and apparatus in structure determination. Terms: 3 and 4. Weight: 4. Longley, Robertson, Erickson, Moses, and Reedy

*ANA-291(B). Special Topics in Nerve Ultrastructure. Each student will choose a special topic (e.g. ultrastructure of synapses, organs of special sense, myelin, motor and plates, nerve membranes, etc.). Each student will pursue his topic in the library during the first half of the semester with guidance from the instructor and prepare a detailed paper. The second half of the semester will be devoted to seminar presentations and discussions of the selected topics. Terms: 1 and 2. Weight: 2. Robertson

*ANA-340(B). Tutorial in Advanced Anatomy. Selected topics will be chosen for intensive reading and discussion. Topics may be chosen related to basic problems of cytology, growth and development, biophysics, endocrinological control, neuroanatomy, physiological differentiation and evolutionary origins of functional micro-systems. Every term. Weight: 1-3. Anatomy faculty

*ANA-344(B). Advanced Neuroanatomy of Sensory and Motor Mechanisms. The course will involve consideration of classic and modern concepts of somatic and special sensory systems, and of somatic and visceral motor systems. Clinical correlations of basic neuroanatomy will be included. Term: 4. Weight: 3. Peele

*ANA-354(B). Research Techniques in Anatomy. A preceptorial course in

various research methods in anatomy. An interested student might engage in research in physical anthropology, electron microscopy, developmental biology, fetel physiology, or stereotactic approaches to neuroendocrinology and neuroanatomy. Approval of the student by the faculty is required. Every term. Weight: 4-8. Anatomy faculty

ANA-390(B). Anatomy of the Fetus. The chief objective will be to complete a dissection of the human fetus. Emphasis will be placed on comparing fetal and adult anatomical systems and relationships. Term: 4. Weight: 2. Duke

*ANA-411(B). Molecular and Cellular Bases of Development and Differentiation. Emphasis is placed on the biochemistry of the cell surface as the basis of cell recognition, control of cell cycle and overall tissue organization. An analysis of protein nucleic acid interactions in chromosome structure and function are considered in light of newer concepts of transcriptional and translational control. Studies also include nuclear cytoplasmic interactions as well as hormone induction of differentiation and development. The course is designed to study the phenomena of development and differentiation and has been organized on a multi-disciplinary level. The course is part of the lecture series of the development and differentiation study program, DDS-201(B). Terms: 1 and 2. Weight: 3-4. McCarty, Counce, Kaufman, and Padilla

ANA-414(B). The Human Embryo. The first eight weeks of development are considered in detail, including fertilization, implantation, formation, and function of embryonic membranes and placenta, and establishment of organ systems. Emphasis is placed on distinctive features of human embryogenesis, and on causes, prompt identification, and treatment of congenital defects. Discussions of newborn evaluation and parent counseling will be included. Term: 3. Weight: 2. Counce

*ANA-418(B). Reproductive Biology. An in-depth study of male and female reproductive processes including neuroendocrine, pituitary, and gonadal control mechanisms and the physiology of pregnancy and parturition. Also listed as *PHS-418(B). Terms: 3 and 4. Weight: 2. Anderson, Schomberg, and Tyrey

Anesthesiology

Professor: Merel H. Harmel, M.D. (Johns Hopkins, 1943) Chairman.

Professors: Peter B. Bennett, Ph.D. (Univ. of Southampton, England, 1964); David A. Davis, M.D. (Vanderbilt, 1941); Sara J. Dent, M.D. (Med. Coll. of South Carolina, 1945); Kenneth D. Hall, M.D. (Duke, 1953); Lloyd F. Redick, M.D. (Ohio State, 1958); Vartan Vartanian, M.D. (Cluj Univ. Medical School, Rumania, 1951).

Associate Professors: William J. Murray, M.D. (North Carolina, 1962); Bruno J. Urban, M.D.

(Albertus Magnus, Koln, Germany, 1960).

Associate Clinical Professor: M. Bourgeois-Gavardin, M.D. (Univ. of Paris, 1954; Duke, 1955). Assistant Professors: J. Howard Brown, M.D. (Boston Univ., 1967); John A. Jarrell, Jr., M.D. (Johns Hopkins, 1949); Charles F. Lanning, M.D. (Kansas, 1969); Ingeborg H. Talton, M.D. (Giessen Medical School, Germany, 1952).

Assistant Clinical Professors: Patrick J. Breen, M.D. (Royal College of Surgeons, Ireland, 1959);

Luther C. Hollandsworth, M.D. (Bowman-Gray, 1951).

Associate: Fritz F. Klein, Ph.D. (Duke, 1973).

Electives

ANE-250(C). Clinical Acute Respiratory Physiology. Work in Anesthesiology Blood Gas Laboratory learning theory and practice of oxygen electrode, carbon dioxide electrode and pH meter and ancillary techniques, and in

Recovery Room, Acute Care Unit and study of ventilator problems. Every term. Weight: 2. Hall, Lanning, Brown, Lee, Mr. Anderson, and Mrs. Cooke

ANE-252(C). Clinical Anesthesiology II. Introduction to theory and practice of clinical surgical anesthesia, diagnostic and therapeutic nerve blocks, and cardiopulmonary resuscitation. Students will review physiology and pharmacology of anesthesia and perform general and regional anesthesia and will assist in post-anesthetic respiratory care. Course will be tailored to individual student interests. Every term. Weight: 2-8. Harmel and Staff

ANE-253(C). Anesthesiology Research. Course teaches techniques utilized in clincial and laboratory research in anesthesiology. In collaboration with the faculty, the student will work on a research project related to the physiology and pharmacology of anesthetics. A wide range of facilities including the hyperbaric chamber is available for the measurement of respiratory and circulatory parameters, both in animals and man. Every term. Weight: 8. Bennett, Davis, and Urban

Biochemistry

James B. Duke Professor Robert L. Hill, Ph.D. (Kansas, 1954), Choirmon.

Professors: Professor Emeritus Mary L.C. Bernheim, Ph.D., (Cambridge, England, 1928); Irwin Fridovich, Ph.D. (Duke, 1955); Samson R. Gross, Ph.D. (Columbia, 1953); Walter R. Guild, Ph.D. (Yale, 1951); James B. Duke Professor Philip Handler,* Ph.D. (Illinois, 1939); Jerome S. Harris, M.D. (Harvard, 1933); Henry Kamin, Ph.D. (Duke, 1948); Norman Kirshner, Ph.D. (Pennsylvania State, 1952); Kenneth S. McCarty, Ph.D. (Columbia, 1957); James B. Duke Professor Charles Tanford, Ph.D. (Princeton, 1947).

Associate Professors: Stanley H. Appel, M.D. (Columbia, 1960); Ronald C. Greene, Ph.D. (California Inst. of Tech., 1954); Bernard Kaufman, Ph.D. (Indiana, 1961); Sung-Hou Kim, Ph.D. (Pittsburgh, 1966); William S. Lynn, Jr., M.D. (Columbia, 1946); K.V. Rajagopalan, Ph.D. (Univ. of Madras, 1957); Jacqueline A. Reynolds, Ph.D. (Washington Univ., 1963); Harvey J. Sage, Ph.D. (Yale, 1958); Lewis M. Siegel, Ph.D. (Johns Hopkins, 1965); Robert E. Webster, Ph.D. (Duke, 1965).

Assistant Professors: Robert M. Bell, Ph.D. (California, 1970); Robert L. Habig, Ph.D. (Purdue, 1966); Per-Otto Hagen, F.H.W.C. (Watt Univ., Edinburgh, Scotland, 1961); Dwight H. Hall, Ph.D. (Purdue, 1967); Philip D. Harriman, Ph.D. (California at Berkeley, 1964); William N. Kelley, M.D. (Emory, 1963); Nicholas M. Kredich, M.D. (Michigan, 1962); Robert Lefkowitz, M.D. (Columbia, 1966); Patrick A. McKee, M.D. (Oklahoma, 1962); David C. Richardson, Ph.D. (Massachusetts Inst. of Tech., 1967); J. Bolling Sullivan, Ph.D. (Texas, 1966); Robert W. Wheat, Ph.D. (Washington, 1955).

Associates: John A. Bittikofer, Ph.D. (Purdue, 1971); Joseph Bonaventura, Ph.D. (Texas, 1968); Joe McCord, Ph.D. (Duke, 1970); Yasuhiko Nozaki, Ph.D. (Univ. of Tokyo, 1945); Howard Steinman.

Ph.D. (Yale, 1970).

Research Associates: Steve S. Alexander, Jr., Ph.D.; Edward Baptist, Ph.D.; John E. Bell, Ph.D.; Karl Beem, Ph.D.; William Beranek, Jr., Ph.D.; Sambhu N. Bhattacharyya. Ph.D.; Marc Caron, Ph.D.; Meir Fischer, Ph.D.; Larry Fretto, Ph.D.; Carole Hall, Ph.D.; Eric Johnson, Ph.D.; James Johnson, Ph.D.; Jean Johnson, Ph.D.; Richard F. Jones, Ph.D.; Freeman Ledbetter, Ph.D.; Albert Leyva, Ph.D.; Sahti Mukherjee, D.Sc.; V.R. Naik, Ph.D.; James Paulson, Ph.D.; R. Premakumar, Ph.D.; S.D. Ravindranath, Ph.D.; Ellen C. Robinson, B.S.; Mary C. Rose, Ph.D.; Saura C. Sahu, Ph.D.; Marvin Salin, Ph.D.; Martin Schwyzer, Ph.D.; William L. Stone, Ph.D.; Joel L. Sussman, Ph.D.; Mary Ellen Switzer, Ph.D.; Kenneth Thomas, Ph.D.; Stephen Turner, Ph.D.; José Vega, Ph.D.; Ronald W. Warrant, Ph.D.; Norma White, M.S.; F.J. Yost, Ph.D.

Required Courses

BCH-200—the "core" course given to all freshman medical students during a period of eighteen weeks in the first term—emphasizes the relationship between structure and function of the major classes of macromolecules in living systems including proteins, carbohydrates, lipids, and nucleic acids. The metabolic interrelationships and control mechanisms are discussed as well

^{*}On leave of absence.

as the biochemical basis of human disease. An introduction to the biochemical basis of human disease is presented in a series of biochemical-clinical correlation lectures on such diseases as sickle-cell anemia, the glycogen storage diseases, gout, phenylketonuria, galactosemia, diabetes, and neoplasia.

BCH-204—the required course in genetics for all first year students—is given during fourteen weeks of the first term. The course emphasizes fundamental properties of gene function, recombination, selection, organization, and structure. Human and medical genetics are emphasized to provide basic concepts necessary for understanding the origin and consequences of genetic variability. Approximately one-third of the lectures illustrate basic genetic problems.

Students with previous formal training in genetic principles have the option of presenting a paper instead of taking the regular examinations. However, they are encouraged to attend clinical presentations inasmuch as

new data are provided.

Electives

*BCH-216(B). Molecular Genetics. Genetic mechanisms and their relationship to nucleic acids and their synthesis. (Listed also in Graduate School Bulletin as Genetics 216.) Terms: 3 and 4. Weight: 4. Guild and others of the University Program in Genetics

*BCH-222(B). The Structure of Biological Macromolecules. Introduction to the techniques of structure determination by X-ray crystallography and study of some macromolecules whose three-dimensional structures have been determined at high resolution. Terms: 3 and 4. Weight: 2. Richardson and Kim

BCH-234(B). Metabolic-Genetic Disease Seminar. Diseases of metabolism studied in detail with an emphasis on human genetics and inborn errors of metabolism. Format includes staff lectures, student seminars, patient presentations, textbook and literature reading. The group will be small enough to permit maximal personal interaction, particularly between students and faculty. Term: 3. Weight: 3. Wyngaarden, Gross, Hill, Sidbury, Kredich, Kelley, Holmes, and Staff

*BCH-276(B). Comparative and Evolutionary Biochemistry. Lectures and discussion of the origin of life, evolution of the genetic code, mutation and protein polymorphism, natural selection and protein structure, and comparison of homologous proteins and nucleic acids. Laboratory work involves the purification and characterization of homologous proteins from fish and invertebrates. Techniques used include salt fractionation, electrophoresis, ion-exchange and molecular exclusion chromatography, fingerprinting, molecular weight determination, amino acid composition, and other related approaches. Term: Summer. Weight: 6 per 5 weeks. Sullivan

*BCH-282(B). Experimental Genetics. A series of laboratory exercises and discussions on the molecular mechanisms of mutation, recombination, replication, transcription, and translation of the genetic material. Term: 3 and 4. Weight: 2. Harriman and others of the University Program in Genetics

*BCH-286(B). Current Topics in Immunochemistry. This course deals with the structure-function specificity of antibodies. Immunogenicity and tolerance are discussed, with special emphasis on current theories of the diversity and synthesis of antibody molecules. Terms: 3 and 4. Weight: 2. Sage

- *BCH-288(B). The Carbohydrates and Lipids of Biological Systems. The subjects will be considered in the following two general categories: (1) The relationship between structure and function particularly, (a) cell surface carbohydrates as antigenic determinants and their relationship to viral and carcinogen transformation, (b) connective tissue mucopolysaccharides, (c) structural features of lipids and phase transitions. (2) Biosynthesis and catabolism. Terms: 3 and 4. Weight: 2. Kaufman
- *BCH-290(B). Bioenergetics. Biological mechanisms of transduction of energy (covalent, ionic, photonic, and electric) will be considered, using photosynthetic, oxidative, phosphorylative, and glycolytic systems as examples. Since many of the above processes occur in membranous systems, the role and function of membranes in these processes will also be considered. Terms: 3 and 4. Weight: 2. Lynn
- *BCH-293(B). Macromolecules. The structure of biological macromolecules and their relations to biological functions. The emphasis is on proteins and enzymes. Terms: 1 and 2. Weight: 4. Tanford and Hill
- *BCH-295(B). Enzyme Mechanisms. A consideration of the theoretical and practical aspects of the isolation and assay of enzymes, kinetic description of enzyme catalysis, allostery, investigation of binding and catalytic sites, classification of enzymes and mechanisms of enzyme action. Terms: 1 and 2. Weight: 3. Fridovich and Rajagopalan
- *BCH-296(B). Biological Oxidations. A lecture, conference, and seminar course which deals with the mechanism of electron transport and energy conservation in a variety of oxidative enzymes. These mechanisms will be examined both in purified enzymes and in organized systems such as the mitochondrion, the endoplasmic reticulum, and the chloroplast. Terms: 3 and 4. Weight: 2. Kamin, Fridovich, Rajagopalan, and Siegel
- *BCH-297(B). Intermediary Metabolism. The synthesis and degradation of carbohydrates, lipids, nitrogenous compounds will be discussed in detail with emphasis on energy transformation and regulation of metabolic pathways. Terms: 1 and 2. Weight: 3. Kirshner, Siegel, Bell, and Greene
- *BCH-299(B). Nutrition. This course will examine the experimental basis for the identification and quantification of requirements for calories, macronutrients, and micronutrients (vitamins and minerals). It will deal with the biochemistry of nutrition, with the assessment of nutriture, and with the biological effects of deficiency or excess of nutrients. The course will seek to define optimal nutriture, and will search for the factual bases (if they exist) for commonly held beliefs on the nutrition of individuals and populations. The course will consist of informal lectures and, if possible, student seminars. Term: 2. Weight: 2. Kamin
- *BCH-302(B). Neurochemistry. Biochemical aspects of structure and function of nerves, specialized aspects of carbohydrates, lipids, proteins, myelin, neurotubules, neurofilaments, transmitters, receptors, and nervemuscle relationships. Terms: 3 and 4. Weight: 3. Kirshner, Appel, Kaufman, Lefkowitz, and Vanaman
- *BCH-351(B). Genetics Seminar. Required of all students specializing in genetics. Terms: 1 and 2. Weight: 1. Gross and others of the University Program in Genetics
 - *BCH-352(B). Genetics Seminar. Required of all students specializing in

genetics. Terms: 3 and 4. Weight: 1. Gross and others of the University Program in Genetics.

*BCH-355(B). Research in Genetics. In a limited number of cases, a student will be permitted to participate in the research program of a faculty member. Acceptance is by individual arrangement with the proposed faculty preceptor. Terms: 1 and 2. Weight: 1-8 per term. Biochemistry faculty

*BCH-356(B). Research in Genetics. In a limited number of cases, a student will be permitted to participate in the research program of a faculty member. Acceptance is by individual arrangement with the proposed faculty preceptor. Terms: 3 and 4 or summer. Weight: 1-8 per term. Biochemistry faculty

*BCH-357(B). Research in Biochemistry. In a limited number of cases, a student will be permitted to participate in the research program of a faculty member. Acceptance is by individual arrangement with the proposed faculty preceptor. Terms: 1 and 2. Weight: 1-8 per term. Biochemistry faculty

*BCH-358(B). Research in Biochemistry. In a limited number of cases, a student will be permitted to participate in the research program of a faculty member. Acceptance is by individual arrangement with the proposed faculty preceptor. Terms: 3 and 4 or summer. Weight: 1-8 per term. Biochemistry faculty

BCH-360(B). Clinical Chemistry Laboratory. Medical students may participate in the program of the Clinical Chemistry Laboratory on a tutorial basis. Students must receive the permission of the instructor. Terms: 1, 2, 3, or 4. Weight: 4. Habig

*BCH-411(B). Molecular and Cellular Bases of Development and Differentiation. Emphasis is placed on the biochemistry of the cell surface as the basis of cell recognition, control of cell cycle and overall tissue organization. An analysis of protein nucleic acid interactions in chromosome structure and function are considered in light of newer concepts of transcriptional and translational control. Studies also include nuclear cytoplasmic interactions as well as hormone induction of differentiation and development. The course is designed to study the phenomena of development and differentiation and has been organized on a multi-disciplinary level. The course is part of the lecture series of the development and differentiation study program, DDS-201 (B). Terms: 1 and 2. Weight: 3-4. McCarty, Counce, Kaufman, and Padilla

Community Health Sciences

Professor: E. Harvey Estes, Jr., M.D. (Emory, 1947), Choirmon.

Professors: Thomas E. Frothingham, M.D. (Harvard, 1951); Clark C. Havighurst, J.D. (Northwestern, 1958); Siegfried H. Heyden, M.D. (Univ. of Berlin, 1951); Eva J. Salber, M.D. (Cape Town, 1955); Harmon L. Smith, Ph.D. (Duke, 1962); Max A. Woodbury, Ph.D. (Michigan, 1948).

Associate Professors: Gert H. Brieger, M.D. (California at Los Angeles, 1957), Ph.D. (Johns Hopkins, 1968); Arthur C. Christakos, M.D. (Med. Coll. of South Carolina, 1955); William E. Hammond, Ph.D. (Duke, 1967), William O'Fallon, Ph.D. (Morth Carolina, 1965)

Hammond, Ph.D. (Duke, 1967); William O'Fallon, Ph.D. (North Carolina, 1965).

Assistant Professors: Collin F. Baker, Jr., M.D. (Vanderbilt, 1943); Reginald D. Carter, Ph.D. (Bowman Gray, 1970); William P. Cleveland, Ph.D. (Wisconsin, 1972); Byron K. Cole, M.D. (Cincinnati, 1960); Frank C. Dorsey, Ph.D.* (Duke, 1971); Saleh A. Fetouh, M.D. (Cairo, 1962); Daniel T. Gianturco, M.D. (Buffalo, 1960); Michael Hamilton, M.D. (Rochester, 1964); Carol C. Hogue, Ph.D. (North Carolina, 1974); William J. Kane, M.D. (Temple, 1969); Kerry L. Lee, Ph.D. (North Carolina, 1974); Gerard Musante, Ph.D. (Tennessee, 1971); Dorothy E. Naumann, M.D.

^{*}On leave of absence.

(Syracuse, 1940); Donald D. Neish, M.D. (Temple, 1958); John B. Nowlin, M.D. (Duke, 1959); George R. Parkerson, Jr., M.D. (Duke, 1953); W.J. Kenneth Rockwell, M.D. (Duke, 1961); Marvin A. Schilder, B.S. (Baruch School of Business, 1964); Eugene S. Schneller, Ph.D. (New York, 1972); Richard G. Stuelke, M.D. (Iowa, 1957); Robert J. Sullivan, Jr., M.D. (Cornell, 1966); Thomas T. Thompson, M.D. (Virginia, 1964); Dennis Tolley, Ph.D. (North Carolina, 1974); Ruby L. Wilson, B.S.N., Ed.D.

(Pittsburgh School of Nursing, 1954).

Associates: Richard Ainsworth, M.P.H. (North Carolina, 1974); William L. Beery, M.P.H. (North Carolina, 1973); Frank J. Breslin, M.D. (Tufts, 1973); Stephen Bundy, M.P.H. (North Carolina, 1974); Shirley Callahan, M.P.H. (North Carolina, 1958); Ron W. Davis, Ed.D. (Columbia, 1952); Sandra B. Greene, M.S.P.H. (North Carolina, 1972); Albert E. Hathaway, M.D. (Hahnemann, 1945); David P. Hunter, M.P.H. (Pittsburgh, 1970); Ethel J. Jackson, M.P.H. (North Carolina, 1974); John J. McQueary, B.S. (North Carolina Central, 1973); Nancy R. Mendell, Ph.D. (North Carolina, 1972); Sigrid J. Nelius, M.D. (Ludwig Maximillian, 1949); James O'Rourke, M.D. (Kentucky, 1966); R.A. Rosati, M.D. (Duke, 1967); Catherine M. Severns, R.N.P. (Yale, 1971); Nancy R. Shaw, J.D. (Duke, 1973); Kitty Shimoni, M.D. (Univ. of Zurich, 1966); Jay S. Skyler, M.D. (Jefferson, 1969); Woodhall Stopford, M.D. (Harvard, 1969).

Assistant Clinical Professors: Robert L. Bauer, M.D. (Temple, 1946); H. Dean Belk, M.D. (South Carolina, 1960); Henry J. Carr, Jr., M.D. (Duke, 1954); Thomas L. Dulin, M.D. (Duke, 1957); Julian M. Duttera, Jr., M.D. (Duke, 1968); J.F. Finklea, M.D. (South Carolina, 1958), D.P.H. (Michigan, 1966); Aston T. Griffin, M.D. (Duke, 1958); Douglas I. Hammer, M.D. (Tufts, 1962); V. Hasselblad, Ph.D. (California at Los Angeles, 1967); Elam S. Kurtz, M.D. (Western Reserve, 1955); Lyndon K. Jordon, M.D. (Duke, 1961); Philip Naumoff, M.D. (Duke, 1937); Glenn C. Newman, M.D. (Duke, 1939); James G. Nuckolls, M.D. (Duke, 1966); Amos T. Pagter, Jr., M.D. (Duke, 1955); Cranford O. Plyler, Jr., M.D. (George Washington, 1953); Robert H. Shackelford, M.D. (Bowman Gray, 1947);

C. M. Shy, M.D. (Marquette, 1962); George T. Wolff, M.D. (Jefferson, 1952).

Clinical Associates: Lawrence M. Alexander, M.D. (Duke, 1952); J. Ted Best, M.D. (North Carolina, 1968); R. S. Cline, M.D. (North Carolina, 1957); F.P. Dalton, M.D. (Duke, 1960); Walter L. Holton, M.D. (Duke, 1973); P.O. Howard, M.D. (Virginia, 1955); John R. Kindell, M.D. (Virginia, 1955); J.P. Stratton, M.D. (Harvard, 1961).

Instructors: Edwin B. Cooper, Jr., M.D. (Duke, 1966); Joyce Clayton Nichols, R.P.A. (Duke, 1970).

Electives

CHS-208(B)†. Medical Uses of Computers. An introductory course on applications of computers in clinical medicine. Special emphasis is given to various methods of collecting data from patients and making such data available for computer analysis. Working computer applications in several medical environments will be considered as examples, including visits to these units. The student will, in addition to the above, be taught the principles of computer programming through an exposure to a higher level computer language (FORTRAN). Experience will include the writing of simple computer programs and hands on experience with computers and computer input and output devices. Terms: 3 or 4. Weight: 2. Hammond and Rosati

CHS-211(B)†. The Profession of Medicine. A seminar to discuss medical people and their work. Major consideration will be given to the nature of medical knowledge, the structures which have emerged for the practice and transmission of this knowledge, medical men in practice, and medical men as professionals. A number of sessions will consider alternatives to the present structuring of the knowledge and settings associated with modern medicine and the emergence of paraprofessionals and semiprofessionals on the medical scene. Each student will be required to carry out a special research project. Terms: 1, 2, 3, or 4. Weight: 2. Schneller

CHS-212(B)†. Application of the Systems Approach in Medical Practice. A series of two-hour seminars to discuss and highlight the value of the systems approach in improving the quality of medical care in various health care set-

†For further information, consult the Associate Director of Undergraduate Medical Education.

tings. Topics to be discussed include: collection of data for functional analysis of medical practice, analysis of the quality of care, analysis of manpower and computer innovations, and cost-benefit analysis. The student will apply the discussion material to a specific area of interest in medical practice, collecting and analyzing his own data. Suggested reading list will be provided. Terms: 1 and 2. Weight: 2. Schilder

CHS-215(B)[†]. Biostatistics in the Medical Sciences. The theory and application of basic statistical concepts as they affect the design and analysis of biomedical research activities. Terms: 2 or 4. Weight: 2. O'Fallon and Tolley

CHS-225(B)+. Digital Computers and Their Application in the Health Sciences. Section B1—For students desiring an intensive exposure to medical computer applications. The flexible format of the course permits a variety of projects in computer medicine. Examples include projects in interactive patient interviewing; computer-aided instruction; patient/MD education; data collection, organization, retrieval, display and analyses; and MD-assist programs. Section B2—For students desiring an exposure to computer models and simulation. Orientation is primarily to computer analysis of medical data bases illustrating the reasoning foundations of medical diagnosis, prognosis, and disease definitions. Students will be expected to take CPS 51 (Introduction to Digital Computation) and CPS 163 (Data Analysis) or equivalent. Features of this section will be carrying out a computer project under a clinical supervisor. A weekly seminar forms the focus for both sections of the course. Every term. Weight: 10. Section B1—Hammond; Section B2—Woodbury

CHS-227(B)†. Medicine in America. The historical development of medical science, the medical profession, and patterns of medical care in the United States. Included will be such topics as sanitary reform, the physician's standing in society, medical education, medical organizations, and poverty and medicine. Terms: 3 or 4. Weight: 1. Brieger

CHS-229(B)†. The Development of Modern Medicine. Comprising lectures, discussions, and readings, this course will outline the general history of medicine and will then emphasize the evolution and acceptance of some of the key ideas of modern medicine such as the cell theory, the germ theory, antisepsis, and theories of immunity. The focus will be on the nineteenth and early twentieth centuries. Terms: 1 or 2. Weight: 1. Brieger

CHS-231(B)†. Medical Care Insurance. A seminar to cover the history of health insurance in the United States and selected European countries; compulsory versus voluntary insurance; advantages and disadvantages of major specific programs; interests of the consumer, the provider, and the insuring agency; attitudes and role of "organized medicine"; trends in health insurance (HMOs, PSROs, etc.). Terms: 2, 3, 4, or summer. Weight: 1. Goldwater

CHS-233(B)†. Occupational Medicine. (Formerly Medicine and Industry.) Student participation in projects being conducted in the Division of Occupational Medicine. Background material will be presented covering history of occupational (industrial) medicine. labor legislation, workmen's compensation and the Occupational Safety and Health Act (OSHA) of 1970. Clinical and epidemiological aspects of occupational diseases will be included, with emphasis on industrial hygiene and toxicology. Organization and administration of employee health programs will also be considered, with visits to representative establishments as part of the experience. Typical projects

[†]For further information, consult the Associate Director for Undergraduate Medical Education.

include such matters as evaluation of chemical exposures in the work environment, reactions of humans to chemical stress, medical evaluation of suspected cases of occupational disease. Terms: 2, 3, 4 or summer. Weight: 6. Goldwater, Stopford, and Mr. Bundy

CHS-235(B)†. Collection and Analysis of Survey Information. A body of survey data will be given directed analysis. Essential data collection, preparation, statistical and computer techniques will be learned. A question-naire prepared for a current survey project will provide a basic set of data for analysis. Questions for discussion include: assessment of effectiveness of the questionnaire; response differences as related to sex, age, and race of respondent; item analysis of questionnaires. Terms: 2 or 4. Weight: 1-2. Wilkinson

CHS-238(B)†. Tutorial in Community Health Sciences. An eight week, individually arranged experience in which the student participates in the research program of a faculty member. The subject matter, course weight, and meeting time will be arranged with the faculty member. Each student will meet regularly with his faculty preceptor and will carry out a project related to the preceptor's work. Through these discussions and project, the student will be able to develop an understanding of the disciplines involved. Possible areas include management sciences, economic aspects of health care, computer technology, biostatistics and epidemiology. Because of the variety of projects available and the necessity of prior arrangements, it is essential that interested students consult with the instructor or staff at least one month before the beginning of the term elected. Every term. Weight: 1-8 per term. Estes and Staff

CHS-240(B)†. Epidemiology. Principles of epidemiology will be emphasized in this introductory course. Application of concepts will be illustrated by discussion of the current literature on heart disease, cancer, stroke, and infectious diseases. Selection of topics will be adapted to the interest of the student who will be expected to review, and to present for discussion, the epidemiologic literature in a chosen area. This course will help to prepare the student to design and to conduct useful epidemiologic studies by identifying some of the common pitfalls encountered in interpreting epidemiologic data. Terms: 2 and 3. Weight: 1. Sullivan

CHS-217X(C)†. Community Health in Georgia. An experience in applied community health sciences in Claxton, Georgia; epidemiology of cardio- and cerebrovascular disease-Evans County Study (started in 1960, now in its four-teenth year). Development of research projects depending on the special interest of the student leading to papers for publication. Room, board, and mileage will be paid (E.C. Health Dept.) Term: summer. Weight: 9. Heyden and Hames (general practitioner, Director of the Evans County Study)

CHS-219(C)†. Tutorial in Clinical Epidemiology. Selected topics will be chosen for intensive reading and discussion. Major emphasis is on cardioand cerebrovascular chronic-degenerative and major neoplastic diseases, including patient demonstrations on the ward. Terms: 3 and 4. Weight: 2. Heyden

CHS-221(C)†. The Computer Textbook of Medicine. Students will participate in the writing and updating of the computer textbook of medicine. Information contained in the initial chapter on ischemic heart disease will be used to assist in the management of patients on the Cardiology Service. Every term. Weight: 2-4. Rosati and Starmer

[†]For further information, consult the Associate Director for Undergraduate Medical Education.

CHS-239(C). Community Medical Care Experience. An experience will be arranged for each student under the supervision of competent physicians in their own clinics. In addition to delegated clinical responsibilities, a portion of the time will be spent in discussion of features which make that particular clinical environment similar to, or distinct from, other types of clinical experience.

A wide variety of geographic locations and practice types are available. Among these are family practice clinics in Sanford, Smithfield, Mount Olive, Lansing; primary care internist clinics in Clinton, Sylva; a small hospital in Sea Level; and a neighborhood comprehensive care clinic in Durham. In some locations accommodations are available for spouses. Because of the variety of available settings and the necessity for prior arrangements, it is essential that interested students contact the instructor or staff as soon as possible, and at least one month prior to the desired term. Every term. Weight: 9. Estes and Staff

CHS-241(C)†. Models of Ambulatory Care Delivery: Urban and Rural. A tutorial in which the first term discussion will focus on existing models of ambulatory care and the methods of community diagnosis using Durham as an example. Each student will select a topic for concentration such as financing of health care, consumer participation, determinants of utilization of medical services, health planning, neighborhood health centers, family practice, or health services in England.

In the second term tutorials will be of a practical nature and/or emphasize field work. Students will choose 1 of 3 areas of work: (a) survey research methods for determining the structure, characteristics, and health care needs of a specific population in a rural section of Durham County, or questionnaire construction and study design around a relevant community problem; (b) consumer participation in health care planning; (c) the use of audiovisual techniques in promoting better communication between providers and consumers of health services. Terms: 1 and 2. Weight 1-3. Salber and staff of the Department of Community Health Sciences

CHS-243(C)†. Ambulatory Clinics. A tutorial in which the following topics are discussed: group practice, prepayment versus fee for service plans, screening clinics, use of ancillary health manpower, automated medical records, accounting procedures, and ambulatory health centers with concomitant projects. Each student will be responsible for a project in his chosen field. Terms: 3 or 4. Weight: 1. Mr. Schilder, Cole, and Staff

CHS-246(C)[†]. Bioethics. Lectures, discussion, and readings in selected ethical questions raised by modern biomedical science and technology; including such topics as genetics and the "new biology," contraception, abortion, experimentation, consent, behavior control, scarce medical resources, dying and death. Terms: 1 and 2. Weight: 1. Harmon Smith

CHS-247(C)[†]. Philosophic Problems for Physicians. This seminar brings the resources of literature, poetry, philosophy, psychology, and sociology to bear upon specific ethical and philosophical problems with which the practicing physician deals. Each student leads at least one seminar on specific subject of his choice. Where appropriate and desirable, selected outside visitors will be invited to contribute to the discussion. The following subjects will be among those offered for consideration: (1) death and dying from the patient's and physician's point of view; (2) euthanasia—societal and legal

†For further information, consult the Associate Director for Undergraduate Medical Education.

barriers; (3) abortion, eugenics, and transplantation—ethical implications; (4) informed consent, the golden rule and the history of auto-experimentation; (5) ethics of the double-blind controlled therapeutic trail; (6) behavior control and psychosurgery in a free society; (7) quality of indifference as a characteristic of the health care worker; (8) anxiety and the plight of the individual in a technocratic society. Suggested reading lists for each subject will be provided. Term: 3 or summer. Weight: 2. Boeck

CHS-249(C)†. Issues in Law and Medicine. A seminar involving discussion of both practical law for the physician and how social issues affect law and medicine. Emphasis will be placed on those aspects of the law which will most likely directly affect him as a practicing physician, including the philosophy of law; the adversary system; the physician in court; the law of malpractice, human experimentation, abortion and sterilization; forensic pathology, and forensic psychiatry. In addition, attention will be given to ancillary issues such as licensure of physicians, paramedical personnel, and hospital regulation. Term: 2 or 4. Weight: 2. Mrs. Shaw

CHS-253(C). Rehabilitation Medicine. A preceptorial experience based at the Duke Inpatient Rehabilitation Unit in the Durham Rehabilitation Center. Students directly participate in the planning and execution of rehabilitation programs for individual patients. Major emphasis is placed on the teamwork of doctors, nurses, physical therapists, and others with a variety of skills necessary to execute a successful rehabilitation effort.

In addition to the usual rounds, students may attend "specialty" rehabilitation clinics and conferences including: (a) amputee clinic at V.A. Hospital; (b) Spinal Cord Rounds at Duke; (c) Inpatient Unit Staff Conference at IRU; (d) Orthopaedic Rounds at IRU; (e) Cerebral Palsy Conference at Lenox D. Baker Cerebral Palsy Hospital. Terms: 1, 2, 3, 4. Weight: 1-6. Cooper and Staff

CHS-255(C). University Health Services Clinic. A clinical experience aimed at providing the student with experience in diagnosis and treatment of those common illnesses comprising 80-90 percent of problems seen in primary care practice setting. The student will work under the direction and close supervision of faculty members in the University Health Services Clinic, and will have an opportunity to work with other clinic team members, such as physician's associates and nurse practitioners. Every term. Weight: 8. Cole, Stopford, Breslin, and Neish

CHS-257(C)+. Pollution, Politics, and Public Health. Legislation and other regulations designed to control environmental pollution depend heavily on evidence of adverse effects on human health. Using actual "case studies" of recent legislation (lead, mercury, phosphates, etc.), the process of standard-setting will be examined, particularly in so far as health effects are used to support legislative and administrative action. A major part of the teaching material will be drawn from the personal experiences of the instructor. Terms: 2, 3, or 4, summer. Weight: 1. Goldwater

CHS-259(C)†. Clerkship in Family Practice. An experience in patient care under the preceptorship of family doctors in model group practice of the Family Medicine Residency Training Program. In addition to clinical experience in primary care, the student will attend conferences and rounds in Family Medicine at Watts Hospital, where he can observe the management of hospital patients by the family physician. Emphasis throughout is on manage-

†For further information, consult the Associate Director for Undergraduate Medical Education.

ment of the problems most commonly seen in office practice and much attention is given to psychosocial and socioeconomic problems of patients. Terms: 1, 2, 3, 4. Weight: 8. Kane, Baker, Parkerson, and Staff

CHS-261(C). Family Practice Continuity Experience. For students desiring a less intensive experience but with greater continuity in Family Practice, the opportunity is offered to work in the Family Medicine Center for two half-days weekly throughout the year under the preceptorship of family physicians. The student will be assigned certain families and will be responsible for planning their comprehensive care during the period. Emphasis is on the problems of family practice, and on the methodology of practice necessary to the proper provision of long-term care. A problem-oriented record system, adapted to ambulatory care and a system of diagnostic indexing is taught. Terms: 1, 2, 3, 4. Weight: 2 per term. Baker and Staff

CHS-263(C). Relating to the Patient as a Family Doctor. The nature of the doctor-patient relationship in family practice will be explored through seminars conducted in the Family Medicine Center by family physicians. The emotional components of the doctor-patient encounter will be analyzed by critique of actual interviews, using video-playback techniques. Cost-benefit factors, responsibility for continuity of care, and methodology of office practice will be discussed as expressions of concern for the patient. Terms: 1, 2, 3, 4. Weight: 2. Baker, Kane, Parkerson, and Moore

Medicine

Professor: James B. Wyngaarden, M.D. (Michigan, 1948), Chairman.

CARDIOLOGY DIVISION

Professor: Andrew G. Wallace, M.D. (Duke, 1959), Chief.

Professors: E. Harvey Estes, M.D. (Emory, 1947); Walter L. Floyd, M.D. (Johns Hopkins, 1954); Joseph C. Greenfield, M.D. (Emory, 1956); William R. Harlan, M.D. (Virginia, 1951); Walter D. Obrist, Ph.D. (Northwestern, 1950); Edward S. Orgain, M.D. (Virginia, 1930); Eugene A. Stead, Jr., M.D. (Emory, 1932); Robert E. Whalen, M.D. (Cornell, 1956).

Associate Professors: Victor S. Behar, M.D. (Duke, 1961); Yi-Hong Kong, M.D. (Natl. Defense Med. Center, Taiwan, 1958); Robert J. Lefkowitz, M.D. (Columbia, 1966); Patrick A. McKee, M.D. (Oklahoma, 1962); James J. Morris, M.D. (State Univ. of New York, 1959); Robert H. Peter,

M.D. (Duke, 1961).

Assistant Professors: Robert J. Bache, M.D. (Harvard, 1964); David L. Brewer, M.D. (Oklahoma, 1966); Fred R. Cobb, M.D. (Mississippi, 1964); John J. Gallagher, M.D. (Georgetown, 1968); Peter P. Gebel, M.D. (Harvard, 1958); Barbara C. Newborg, M.D. (Johns Hopkins, 1949); Robert A. Rosati, M.D. (Duke, 1967); C. Frank Starmer, Ph.D. (North Carolina, 1968); Harold C. Strauss, M.D. (McGill Univ., Montreal, Canada, 1964); Olaf Von Ramm, Ph.D. (Duke, 1973); Galen S. Wagner, M.D. (Duke, 1965); Abe Walston, M.D. (Duke, 1963); Robert A. Waugh, M.D. (Pennsylvania, 1966); Redford B. Williams, M.D. (Yale, 1967).

Associates: Earl W. Ferguson, M.D. (Texas, 1970); David B. Gilbert, M.D. (Colorado, 1965); Carl W. Hartman, M.D. (New York, 1969); Joseph R. Kisslo, M.D. (Hahnemann Med. Coll., 1967); James R. Margolis, M.D. (Illinois, 1968); Philip McHale, Ph.D. (Duke, 1972); Robert H. Svenson,

M.D. (Chicago, 1969).

DERMATOLOGY DIVISION

Professor: J. Lamar Callaway, M.D. (Duke, 1932), Chief.

Associate Professors: Lowell A. Goldsmith, M.D. (State Univ. of New York, 1963); Sheldon R. Pinnell, M.D. (Yale, 1963); John P. Tindall, M.D. (Duke, 1959).

ENDOCRINOLOGY DIVISION

Professor: Harold E. Lebovitz, M.D. (Pittsburgh, 1956), Chief.

Professor: Harry T. McPherson, M.D. (Duke. 1948).

Associate Professors: Jerome M. Feldman, M.D. (Northwestern, 1961); Charles Johnson, M.D. (Howard, 1963).

Assistant Professors: George J. Ellis, M.D. (Harvard, 1963); Robert E. Fellows, Jr., M.D. (McGill, 1959), Ph.D. (Duke, 1969); Francis A. Neelon, M.D. (Harvard, 1962).

Associate: Jay S. Skyler, M.D. (Jefferson Med. Coll., 1969).

GASTROENTEROLOGY

Professor: Malcolm P. Tvor, M.D. (Duke, 1946). Chief.

Associate Professors: Michael E. McLeod, M.D. (Duke, 1960); Steven H. Quarfordt, M.D. (New York Univ., 1960).

Assistant Professors: John T. Garbutt, M.D. (Temple, 1962); Jacqueline C. Hijmans, M.D. (Univ. of Leiden, 1951); Alfred L. Hurwitz, M.D. (Harvard, 1967); Paul G. Killenberg, M.D. (Pennsylvania, 1963); Thomas T. Long, M.D. (Bowman Gray, 1966); Charles M. Mansbach, II, M.D. (New York

Associate: Donald F. Mandetta, M.D. (Duke, 1968).

HEMATOLOGY DIVISION

Professor: R. Wayne Rundles, Ph.D. (Cornell, 1937), M.D. (Duke, 1940), Chief.

Professors: John Laszlo, M.D. (Harvard, 1955); Wendell F. Rosse, M.D. (Chicago, 1958); Stuart M. Sessoms, M.D. (Med. Coll. of Virginia, 1946).

Associate Professors: William B. Kremer, M.D. (State Univ. of New York, 1962); Harold R.

Silberman, M.D. (Washington Univ., 1956).

Assistant Professors: Ronald Yan-li Chuang, Ph.D. (California at Davis, 1970): Harvey J. Cohen, M.D. (State Univ. of New York, 1965): Walter E. Davis, M.D. (Duke, 1966); Bruce W. Dixon, M.D. (Pittsburgh, 1965); Andrew T. Huang, M.D. (Taiwan, 1965); Gerald Logue, M.D. (Pittsburgh, 1966); Donald S. Miller, M.D. (Harvard, 1962).

Associates: Richard H. Dixon, M.D. (Duke, 1969); Daniel C. Scullin, M.D. (Ohio State, 1970);

Wade K. Smith, M.D. (Johns Hopkins, 1963).

INFECTIOUS DISEASE DIVISION

Professor: Suydam Osterhout, M.D. (Duke, 1949); Ph.D. (Rockefeller Inst., 1959).

Associate Professor: Thomas R. Cate, M.D. (Vanderbilt, 1959).

Assistant Professors: John D. Hamilton, M.D. (Colorado, 1964); Robert J. Sullivan, Jr., M.D.

Associates: Conrad C. Fulkerson, M.D. (Missouri, 1969); Harry A. Gallis, M.D. (Duke, 1967).

NEPHROLOGY DIVISION

Professor: Roscoe R. Robinson, M.D. (Oklahoma, 1954), Chief.

Professors: James R. Clapp, M.D. (North Carolina, 1957); J. Caulie Gunnells, M.D. (South Carolina Med. Coll., 1956).

Associate Professor: C. Craig Tisher. M.D. (Washington Univ., 1961).

Assistant Professors: Vincent W. Dennis, M.D. (Georgetown, 1966); Robert A. Gutman, M.D. (Florida, 1962); Robert H. Harris, M.D. (Georgia, 1966); Richard M. Portwood, M.D. (Texas, 1954); William E. Yarger, M.D. (Baylor, 1963).

NEUROLOGY DIVISION

Professor: Stanley H. Appel, M.D. (Columbia, 1960), Chief.

Professors: Albert Heyman, M.D. (Maryland, 1940); Talmage L. Peele, M.D. (Duke, 1934); John B. Pfeiffer, Jr., M.D. (Cornell, 1942).

Associate Professors: Irwin A. Brody, M.D. (Pennsylvania, 1956); Marcel Kinsbourne, B.M.,

B.Ch. (Guy's Hospital, London, 1955); Ara Tourian, M.D. (Iowa, 1958).

Assistant Professors: J. Gordon Burch, M.D. (Alberta, 1967); James N. Davis, M.D. (Cornell, 1965); Antonio V. Escueta, M.D. (Univ. of Santo Tomas, Phillipine Islands, 1963); John F. Griffith, M.D. (Saskatchewan, 1958); Allen D. Roses, M.D. (Pennsylvania, 1967); Saul M. Schanberg, M.D. (Yale, 1964), Ph.D. (Yale, 1961).

Associates: James O. McNamara, M.D. (Michigan, 1968); Alan M. Nadel, M.D. (Pittsburgh,

1968).

PULMONARY-ALLERGY DIVISION

Professor: Herbert O. Sieker, M.D. (Washington Univ., 1948), Chief.

Professors: Johannes A. Kylstra, M.D. (Univ. of Leiden, 1952), Ph.D. (Univ. of Leiden, 1958); William S. Lynn, M.D. (Columbia, 1946); Herbert A. Saltzman, M.D. (Jefferson, 1952).

Associate Professors: Charles E. Buckley, M.D. (Duke, 1954); Thomas R. Cate, M.D. (Vanderbilt, 1959).

Assistant Professor: Byron D. McLees, M.D. (Duke, 1967). Associate: Charles H. Scoggin, M.D. (Colorado, 1970).

RHEUMATIC AND GENETIC DISEASE DIVISION

Professor: William N. Kelley, M.D. (Emory, 1963), Chief.

Professors: Grace P. Kerby, M.D. (Duke, 1946); James B. Wyngaarden, M.D. (Michigan, 1948). Associate Professors: Nicholas M. Kredich, M.D. (Michigan, 1962); Ralph Snyderman, M.D. (State Univ. of New York, Downstate Med. Center, 1965).

Assistant Professors: Edward W. Holmes, M.D. (Pennsylvania, 1967); Peter F. Pepe, M.D. (Temple, 1966).

Associate: Joseph McCord, Ph.D. (Duke, 1970).

Visiting Associate Professor: Roichi Itoh, M.D. (Yokohama City Univ., 1963).

Visiting Lecturer in Medicine: Mr. Tibor F. Nagey

ADJUNCT FACULTY

Professors of Experimental Medicine: Gertrude B. Elion, D.Sc. (George Washington, 1969); George H. Hitchings, Ph.D. (Harvard, 1933); Robert A. Maxwell, Ph.D. (Princeton, 1954); Charles A. Nichol, Ph.D. (Wisconsin, 1949).

CLINICAL FACULTY

Clinical Professor: John R. Haserick, M.D. (Minnesota, 1941).

Clinical Assistant Professors: A. Derwin Cooper, M.D. (George Washington, 1932), Durham, N.C.; John C. Lumsden, B.S. (North Carolina State Univ., 1947), Raleigh, N.C.; Thomas R. Harris, M.D. (Tennessee, 1955), Shelby, N.C.; Charles W. Styron, M.D. (Duke, 1938), Raleigh, N.C.; Edward

S. Williams, M.D. (North Carolina, 1954), Durham, N.C.

Clinical Associates: Sherwood W. Barefoot, M.D. (Duke, 1938), Greensboro, N.C.; Woodrow W. Batten, M.D. (Bowman Gray, 1944), Smithfield, N.C.; Robert B. Bomberg, M.D. (Colorado, 1964), Durham, N.C.; Robert A. Buchanan, M.D. (Bowman Gray, 1969), Durham, N.C.; John R. Bumgarner, M.D. (Med. Coll. of Virginia, 1939), Raleigh, N.C.; George W. Crane, M.D. (Northwestern, 1946), Durham, N.C.; Frank P. Dalton, M.D. (Duke, 1960), Durham, N.C.; Walter C. Fitzgerald, M.D. (Virginia, 1943), Danville, Va.; Robert S. Gilgor, M.D. (Pennsylvania, 1962), Chapel Hill, N.C.; Harvey E. Grode, M.D. (Duke, 1960), Durham, N.C.; John H. Hall, M.D. (Duke, 1964), Greensboro, N.C.; Michael A. Hamilton, M.D. (Rochester, 1964), Durham, N.C.; H. LeRoy Izlar, Jr., M.D. (Duke, 1948), Durham, N.C.; George E. Koury, M.D. (Tulane, 1944), Burlington, N.C.; Thomas D. Long, M.D. (Bowman Gray, 1952), Roxboro, N.C.; Emmett S. Lupton, M.D. (New York Univ., 1938), Greensboro, N.C.; John A. Lusk, M.D. (Alabama, 1951), Greensboro, N.C.; Isaac H. Manning, Jr., M.D. (Harvard, 1935), Durham, N.C.; Joseph P. McCracken, M.D. (Duke, 1938), Durham, N.C.; D. E. Miller, M.D. (Duke, 1956), Durham, N.C.; W.S. Miller, M.D. (North Carolina, 1961), Raleigh, N.C.; John A. Moore, M.D. (Med. Coll. of Virginia, 1948), Greensboro, N.C.; James R. O'Rourke, Jr., M.D. (Kentucky, 1966), Durham, N.C.; Henry T. Perkins, M.D. (Duke, 1957), Raleigh, N.C.; Vade G. Rhoades, M.D. (Bowman Gray, 1960), Goldsboro, N.C.; Jack G. Robbins, M.D. (Duke, 1948), Durham, N.C.; Richard J. Rosen, M.D. (George Washington, 1955), Greensboro, N.C.; Mehrdad M. Sahba, M.D. (Isfahan Faculty of Med., Iran, 1957), Durham, N.C.; William V. Singletary, M.D. (Duke, 1943), Durham, N.C.; Allen D. Smith, M.D. (Georgia, 1937), Durham, N.C.; John P. Stratton, M.D. (Harvard, 1961), Durham, N.C.; David G. Welton, M.D. (Wisconsin, 1935), Charlotte, N.C.; Khye Weng Ng, M.D. (Univ. of Malaya, 1956), Durham, N.C.; William G. Wysor, M.D. (Virginia, 1950), Durham, N.C.

Required Courses

The Department of Medicine traditionally has the responsibility of preparing the student for a lifetime of learning as he gives care to patients who ask him for help. The first step is to begin to think and act like a doctor.

MED-201—Introduction to Clinical Medicine—a course in the first year prepares the student to take an active role in patient care. The course is designed to introduce students to the methods involved in obtaining information about patients and their problems by means of accurate and complete history taking and performance of physical and laboratory examinations. Early in the course, students are taught the methods used in patient interviewing, the essentials of examination of various organ systems, and the techniques and meaning of the hematological and other laboratory examinations by means of introductory lectures and experience with patients on the ward and in the laboratory. Information obtained in the other first year courses is correlated with clinical manifestations of health and disease. The abnormalities found in the physical examination of certain organ systems are correlated with the abnormalities of laboratory values found. Patient conferences are used to demonstrate the value of obtaining all data about the patient to solve his problems. The student is expected to learn to do this in patients with whom he has contact during ward sessions.

MED-205—the basic course in medicine for all students—is the eight-week clinical clerkship in the second year. The student's desire to give good care is the motive which drives him to excellence. The student learns to identify problems of the patient and marshal the information obtained by past training. He recognizes and attempts to focus the data learned from the basic sciences to specific clinical problems. Using patients as a means of integration, students should continue reading in anatomy, physiology, microbiology, pharmacology, and biochemistry. Problems encountered are discussed with fellow students, interns, residents, and senior staff to gain familiarity with ideas and concepts by actively manipulating them.

The goal of the Department of Medicine is for students to have as many learning experiences as possible by active participation. We hope that they will enjoy these learning experiences so much that they will continue them as long as they see patients. The goal is not to cover the entire field of medicine. Students will engage in extensive postdoctoral clinical or research training. The aims are to assist students in acquiring clinical skills and learning habits that will enable them to identify and solve new problems as they are en-

countered.

In caring for patients with ill-defined genetic and acquired differences with numerous unknown variables, many erroneous conclusions may be made. Students must learn to examine carefully oral and written statements, and inquire of all authorities the source of data which underlie their conclusions. One way for students to learn the difficulties in drawing accurate conclusions about biological systems is to give them opportunities to establish facts on the basis of their own research. This is a very effective method of teaching. The intellectual discipline involved better prepares the future clinician for the role of a lifetime of learning and enables academically oriented students to assess their own potentialities for investigative careers.

The second year course in medicine is aimed at providing students with the basic tools used in the practice of medicine. This is the time when they should consolidate the material learned during the first year and apply it to the study of their own patients. During a brief eight-week course is it not possible to cover the entire body of knowledge of internal medicine. Therefore, students are provided a series of representative learning experiences based on the case study method. The goals are to teach methods of approach to patients, and provide a firm foundation for the solution of new medical problems as they are encountered in the months and years ahead. Specific

expectations of sophomore students are: (1) To obtain and carefully record meaningful histories and perform physical examinations on two or three patients each week. On the day of admission the student will review and compare his findings with the responsible intern or resident. Difference of opinions should be discussed and, when possible, resolved by a return to the bedside. The following day students will present their data to the attending physician. The presentation should be well organized (with the help of the resident), and the present illness should include a carefully reasoned documentation of the events in chronological order which led to the patient's hospitalization. It should contain pertinent facts leading to the most likely diagnosis and also the pertinent negative facts which weigh against a possible alternative diagnosis. (2) To examine their patients repeatedly and reflect on the diagnostic and therapeutic management. It is their responsibility to understand the objectives and to know the results and the interpretation of all diagnostic tests applied to their patients. They will actually perform as many of the necessary tests as possible and record their interpretations in frequent progress notes. (3) To read widely on topics related to their patients, particularly in applicable basic sciences to understand disease mechanisms. They should begin with the descriptions in standard textbooks of medicine which serve as a useful introduction to the subject. Special aspects of the patient's problem should be pursued in basic science or other textbooks, in monographs, or in relevant journals. (4) To know in depth those diseases present in their own patients, including different diagnostic features which distinguish those conditions from related diseases. At this stage of training they are not expected to have equivalent depth of knowledge of diseases that they have not yet encountered, but are responsible for knowing the major points about patients presented in rounds or at the various noon conferences. Principles of therapy should be understood, but details of drug regimens are better left for subsequent experiences. Students are encouraged to participate actively in all teaching exercises on the ward, whether or not their own patients are being discussed.

Electives

MED-202(C). Introduction to Clinical Neurology. Overall view of clinical neurology for nonspecialist. Emphasis on clinical techniques in neurologic examination, approach to neurologic diagnosis and anatomic, pathologic, and physiologic basis for localization of neurologic lesions. EEG and neuroroentgenogram interpretation. Common neurologic disturbances at bedside conferences. Every term. Weight: 2. Appel and Neurology Staff

MED-204(C). Neurology Tutorial. A view of neurology with a clinical or basic science emphasis, depending on student interest. Supervised examination of neurologic patients, discussion seminars, and a guided program of reading. Course especially for students planning careers in psychiatry, neurosurgery, internal medicine, orthopaedics, or neurology. Every term. Weight: 4. Brody

MED-206(C). Clinical Clerkship in Neurology. A clerkship in clinical neurology emphasizing diagnosis and therapy of neurologic diseases. The students will participate in inpatient and outpatient workups, teaching conferences, and diagnostic studies. Every term. Weight: 2-8. Appel and Neurology Staff

MED-207(C). Advanced General Medicine. The student is assigned to inpatient, or outpatient medical services, or emergency ward, and is responsible

for patients assigned to him. He will learn about disease and its management through the staff and consultants directly concerned with the patients. Every term. Weight: 8. Wyngaarden and Staff

MED-209(C). Allergy and Respiratory Diseases. Course provides both introduction and in-depth training in the clinical and laboratory aspects of allergic and respiratory illnesses. Patients are assigned to the student from both the in and outpatient services. Seminars and conferences are held throughout the week for instruction in allergy, clinical immunology, basic immunology, pulmonary function evaluation, and pulmonary physiology. Every term. Weight: 8. Sieker, Buckley, Cate, Cooper, Kylstra, McMahon, Nagaya, Pratt, and Saltzman

MED-215(C). Clinical Dermatology. Students will be assigned to public and private outpatient clinics and will be assigned public and private patients in the hospital in an effort to understand the pathologic physiology of dermatologic disorders and thus management and treatment. Special arrangements needed for 4 or 5 credits. (See MED-216(C) for lecture course.) Every term. Weight: 4, 5, or 8. Callaway, Tindall, Pinnell, Goldsmith, and Resident Staff

MED-216(C). Clinical Dermatology. Students will be given a series of two lectures weekly using 35mm Kodachromes to illustrate both clinical conditions and microscopic sections of the pathologic changes in an effort to understand the pathologic physiology of dermatologic disorders and thus management and treatment. Patient demonstrations will be made half-day to greatly enhance clinical experience. Lecture and demonstration course only. (See MED-215(C) for course offering 4, 5, or 8 credits.) Term: 3. Weight: 2. Tindall, Callaway, Goldsmith, and Pinnell

MED-217(C). Gastroenterology. The role of the gastrointestinal tract and liver in health and disease is emphasized through use of liver and small bowel biopsy with morphological, biochemical, and physiological studies in the daily diagnosis and care of patients hospitalized on the gastroenterology inpatient service and general wards of Duke and V.A. Hospitals. Every term. Weight: 4 or 8. Tyor, Garbutt, Hijmans, Mansbach, McLeod, Quarfordt, Killenberg, and Hurwitz

MED-221(C). Metabolism and Endocrinology. A general course in which the whole patient is approached from an endocrine point of view. Clinical and laboratory diagnosis and titration of therapy are facilitated by the use of a standard data base and study of appropriate flow sheet parameters. The student participates in the evaluation and management of both inpatients and outpatients. Alternatives for eight credits include the V.A. consultation service, the Duke Staff and Clinical Research Unit Service, and the Duke Private Service Staff outpatient clinic and all endocrine conferences are attended on each service.

A four-credit option (4 weeks) allows one student to choose Drs. Ellis, Johnson, or McPherson as his clinical preceptor. The student will care for private inpatients and both staff and private outpatients under his preceptor's guidance. This option must be scheduled by the student with the preceptor before registering for the course. Every term. Weight: 4 or 8. Lebovitz, McPherson, Ellis, Feldman, Neelon, and Johnson

MED-227(C). Rheumatic and Genetic Diseases. The student acquires experience in-depth in the recognition and care of patients with generalized connective tissue diseases and metabolic arthropathies. He works-up and follows patients on wards and in the clinic. Daily rounds with the staff extend

his experience. He learns specialized laboratory and clinical techniques. Full time eight weeks recommended. May be taken for 4 units credit—student spends full time on unit for 4 weeks; 4 weeks on another course by agreement with that instructor. Every term. Weight: 4 or 8. Holmes, Kelley, Kerby, Kredich, Pepe, Snydermon, and Wyngoorden

MED-229(C). Nephrology. Fundamental and clinical aspects of nephrology, renal physiology, hypertension, renin-angiotensin metabolism, and disorders of salt and water metabolism. Full clinical participation on inpatient and outpatient services and the dialysis-transplantation service is offered. Attendance at several scheduled rounds, conferences, and seminars is required. Every term. Weight: 4 or 8. Robinson, Clapp, Dennis, Gallis, Gunnells, Gutman, Portwood, Tisher, Yarger, and Horris

MED-230(C). Clinical Hematology and Oncology (V.A. Hospital). This course provides a broad exposure to hematologic and oncologic disorders. As a member of the section the student actively participates in the following: (1) hematology-oncology consultation service for the V.A. wards, (2) bi-weekly hematology outpatient clinic, (3) management of inpatients with specific hematologic disorders. The wide variety of disorders seen includes leukemias, lymphomas, anemias, bleeding disorders, gammopathies, etc. An opportunity is provided for the student to learn and perform the specialized clinical and laboratory techniques involved in the evaluation of these patients. Ample time is available for contact with the hematology staff and library research. Every term. Weight: 8. Kremer, Cohen, Huong, Dixon, Rosse, and Logue

MED-231(C). Clinical Hematology and Oncology (Duke Hospital). Students are given a unique opportunity to participate actively in care and study of patients with wide variety of hematologic diseases, anemias, bleeding disorders, leukemias, lymphomas, secondary gout, etc. Systematic, quantitative clinical evaluation, and basic techniques of blood and marrow examination, serum and urine protein studies are emphasized. Every term. Weight: 8. Rundles, Silbermon, Rosse, Miller, Kremer, Huong, Logue, and Loszlo

MED-233(C). Clinical Immunohematology. This course is designed to provide clinical and diagnostic laboratory experience in the evaluation and treatment of patients with hematologic disorders characterized by abnormalities of the immune system. The course is integrated in part with Clinical Hematology and Oncology (MED-231). A special opportunity to study blood banking problems, coagulation problems, and clinical problems in immune lysis will be provided. Every term. Weight: 6-8. Rosse, Logue, Silberman, and Rundles

MED-236(C). Research Topics in Endocrinology and Metabolism. Research training and experience in the field of endocrinology and metabolism. This is arranged individually between the student and a specific member of the endocrine staff. Every term. Weight: 8. Lebovitz, Feldmon, Neelon, and Staff

MED-237(C). Metabolic Response to Disease. This seminar series deals with the integrative aspects of the endocrine-metabolic response to disease states. Representative topics include the events involved in adaption to feeding, fasting, injury, surgery, infection, and certain medical disorders (i.e., diabetes, hypoglycemia, etc.). Term: 4. Weight: 1. Lebovitz, Feldmon, McPherson, Ellis, Neelon, and Staff

MED-242(C). Clinical Cardiology (Duke Hospital). Considerable exper-

ience in the clinical aspects of cardiovascular disease is provided the student by participation in patient care, consultations, cardiac care unit, and adult cardiac catheterization laboratory. Specific experience is available in learning to read electrocardiograms and vector cardiograms, as well as learning about echocardiography, phonocardiography, and exercise stress testing. Three two-hour teaching conferences every week in arrhythmias, hemodynamics, and cardiovascular radiology and pharmacology complement the learning experience. Emphasis is placed on bedside teaching, correlating cardiac physical diagnosis and cardiac catheterization hemodynamics. The eight week rotation at present consists of two or three weeks on the consultation service where EKG and VCG are read, consults seen and patients presented to the senior staff; one week working in the Clinical Cardiology Lab where echo, phono, and exercise stress testing is done; two weeks on the Cardiac Care Unit (one student with each of two residents) and three weeks in the Cardiac Catheterization Laboratory where daily bedside teaching and correlation with cardiac catheterization findings are stressed. Every term. Weight: 8. Wallace, Peter, Wagner, Chen, Kong, Strauss, Behar, Greenfield, Morris, Whalen, Orgain, and Flovd

MED-244(C). Clinical Cardiology (V.A. Hospital). Fundamentals of Clinical Cardiology, including physical diagnosis of the cardiovascular system, normal and pathologic cardiovascular physiology, electrocardiography, vectorcardiography, and indirect diagnostic techniques in cardiology. Supervised electrocardiographic interpretation sessions meet daily, and diagnostic and therapeutic clinical cardiology is emphasized during daily consultation rounds with Senior Staff. Patient-oriented physical diagnosis teaching sessions meet twice weekly, and formal electrocardiographic teaching sessions emphasizing interpretation of cardiac arrhythmias meet twice weekly. Four weeks are spent on the General Clinical Cardiology Service, three weeks on the Coronary Care Unit, and one week in association with the Cardiac Catheterization Laboratory. Every term. Weight: 8. Bache, Brewer, Cobb, Gilbert, Greenfield, Hartman, and Walston

MED-250(C). Clinical Allergy-Immunology. The specialist in allergy-immunology relies heavily on the use of laboratory techniques as an aid to patient evaluation. This elective is designed to familiarize the student with the clinical uses of the allergy-immunology laboratory. The course is oriented toward departures from normal immune function in diseases as opposed to pathologic processes characteristic of one or another organ system. Precepted experience is provided in the evaluation of patients with impaired host resistance, hypersensitivity, autoimmunity, heightened susceptibility to neoplasia and the degenerative diseases. Participation in clinically applicable immunoserologic methods is a part of the required course work experience. Selected readings, including a critical awareness of the recent literature, are used to gain an understanding of specific clinical problems. Terms: 1 and 2. Weight: 8. C.E. Buckley

MED-252(C). Physiology of Nephrology. This course is composed of lectures designed to provide insight into the pathophysiology of clinical fluid and electrolyte problems. An attempt is made to integrate established physiologic principles into an analysis of common clinical problems. It is the intent of this course to equip the student with sufficient general information to permit him to adapt fluid and electrolyte therapy to the great variety of specific patient-related problems which he will encounter as a house officer. Terms: 2 or 3. Weight: 1. Clapp and Gutman

MED-254(C). Enterohepatic Circulation and Lipoprotein Metabolism. There will be detailed explorations of biological and related clinical aspects of hepatic and intestinal functions. The course will be structured chiefly through lectures and relevant patient presentations. Term: 3. Weight: 2. Tyor, Lack, Quarfordt, McLeod, Mansbach, Garbutt, and Killenberg

MED-256(C). Ambulatory Patient Care. The student is assigned to the outpatient department and the emergency room and will see patients assigned to him and to a colleague house officer. He may design an individualized outpatient/emergency room schedule which will permit him to have a specific balance of patients with acute and chronic illness. Every term. Weight: 1-8. Dixon, Brewer, and Staff

MED-258(C). Introduction to Bronchopulmonary Disorders and Tuberculosis. The course is designed to provide a broad experience in the clinical and laboratory diagnosis of bronchopulmonary diseases and tuberculosis. Emphasis will be placed on learning through active participation in patient care and through correlations of physiologic, radiologic, and pathologic data with disease processes. Every term. Weight: 8. Cooper, Harle, Kylstra, Pratt, Saltzman, and Sieker

MED-260(C). Clinical Infectious Disease. This course will provide experience in the clinical and laboratory diagnosis of infectious diseases, and their therapy. Emphasis will be placed on learning through active participation in infectious disease consultations and library research. Every term. Weight: 4 or 8. Cate, Hamilton, Suydam Osterhout, Gallis, and Zwadyk

MED-262(C). Diabetes Mellitus: A Camping Experience. Carolina's Camp for Diabetic Children provides a camping experience for 110 children annually. Medical support is provided by medical and nursing students and dietetic interns, under University staff supervision. Each student is directly responsible for the management of one cabin of campers. He participates in infirmary duty, prepares one of the daily staff seminars, and joins in the general camp activities. Room and board provided. Also offered in Nursing School. (Must be cleared in advance with Dr. Ellis, since students from other schools are also accepted.) Term: middle two weeks of August. Weight: 2. Ellis and Skyler

MED-264(C). Computer Aided Instruction in Clinical Neurology. The computer program simulates the patient-physician encounter of clinical practice. The purpose of the program, which includes a wide variety of cases in ten major areas of neurology, is to teach the student the efficient and economical utilization of lab procedures, and the branching logic necessary in accurate neurological diagnosis. Terms: 1, 2, 3, 4. Weight: 1. Burch and Heyman

MED-266(C). Essentials of Rheumatic Disease. The purpose of this course is to give every medical student the opportunity to review in the most concise and efficient manner the basic essentials of clinical rheumatic disease. The emphasis will be on diagnosis and management. Every term. Weight: 1. Kelley, Pepe, and Holmes

Microbiology and Immunology

James B. Duke Professor: Wolfgang K. Joklik, D.Phil. (Oxford, 1952), Chairman.
James B. Duke Professor: D. Bernard Amos, M.D. (Guy's Hospital, London, 1963).
Professors: Richard O. Burns, Ph.D. (Illinois, 1962); Eugene D. Day, Ph.D. (Delaware, 1952);
Richard S. Metzgar, Ph.D. (Buffalo, 1959); Suydam Osterhout, M.D. (Duke, 1949), Ph.D. (Rockefeller Inst., 1959); Robert W. Wheat, Ph.D. (Washington Univ., 1955); Hilda P. Willett, Ph.D. (Duke, 1949).

Adjunct Professor: John E. Larsh, Jr., Sc.D. (Johns Hopkins, 1943).

Associate Professors: Charles E. Buckley, III, M.D. (Duke, 1954); Rebecca H. Buckley, M.D. (North Carolina, 1958); Dolph Klein, Ph.D. (Rutgers, 1961); Jack L. Nichols, Ph.D. (Alberta, 1967); Wendell F. Rosse, M.D. (Chicago, 1958); Harvey J. Sage, Ph.D. (Yale, 1958); Hilliard F. Seigler, M.D. (North Carolina, 1960); Ralph E. Smith, Ph.D. (Colorado, 1968); Thomas C. Vanaman, Ph.D. (Duke, 1968); Frances E. Ward, Ph.D. (Brown, 1965); Hendrik J. Zweerink, Ph.D. (Cornell, 1967).

Adjunct Associate Professor: James J. Burchall, Ph.D. (Illinois, 1963).

Assistant Professors: Dani P. Bolognesi, Ph.D. (Duke, 1967); Peter Cresswell, Ph.D. (London, 1971); Jeffrey Dawson, Ph.D. (Case Western Reserve, 1969); Gale B. Hill, Ph.D. (Duke, 1966); David J. Lang, M.D. (Harvard, 1958); Peter K. Lauf, M.D. (Freiburg, 1960); Jonathan Leis, Ph.D. (Cornell, 1971); Nelson Levy, M.D. (Columbia, 1967), Ph.D. (Duke, 1973); Thomas G. Mitchell, Ph.D. (Tulane, 1971); David W. Scott, Ph.D. (Yale, 1969); Ralph Snyderman, M.D. (State Univ. of New York, Downstate Med. Center, 1965); Joseph L. Wagner, Ph.D. (North Carolina, 1972); Samuel A. Wells, Jr., M.D. (Emory, 1961); Catherine M. Wilfert, M.D. (Harvard, 1962); Peter J. Zwadyk, Ph.D. (lowa, 1971).

Lecturer: Darell D. Bigner, M.D. (Duke, 1965).

Associates: Harry A. Gallis, M.D. (Duke, 1967); Linda Gooding, Ph.D. (Cornell, 1972); Shyuan Hsia, Ph.D. (Washington, 1968); Armead H. Johnson, Ph.D. (Baylor, 1971); Nancy Mendell, Ph.D. (North Carolina, 1972); Sara E. Miller, Ph.D. (Georgia, 1972); Thalachallour Mohanakumar, Ph.D. (Duke, 1974); Emily G. Reisner, Ph.D. (Case Western Reserve, 1969); Wade K. Smith, M.D. (Johns Hopkins, 1963).

Instructor: A. Proctor, M.S.

Research Associates: J. Anderson, Ph.D.; A. Banes, Ph.D.; N. Davis, Ph.D.; B. Dishman, Ph.D.; P. Furman, Ph.D.; R. Gilbertsen, Ph.D.; D. Henderson, Ph.D.; A. Hizi, Ph.D.; H. Huismans, D.Sc.; M. Kelley, Ph.D.; R. Kim, Ph.D.; J. Li, Ph.D.; W. Mitchell, Ph.D.; P. Porter, Ph.D.; M. Sisk, M.D.; L. Sheppard, Ph.D.; S. Shrivastuv, Ph.D.; C. Vôgel, M.S.; M. Watterson, Ph.D.

Required Course

MIC-200—the core course for all freshman medical students—is given in the second semester of the first year. An intensive study is made of the common bacteria, viruses, fungi, and parasites which cause disease in man. The didactic portion of the course focuses on the nature and biological properties of microorganisms causing disease, the manner of their multiplication, and their interaction with the entire host as well as specific organs and cells. The nature of induced immune processes by active and passive immunization and chemotherapy are included.

The laboratory portion of the course is designed to acquaint students with the methods and procedures employed in bacteriological laboratories, to provide the basis for an understanding of cell-virus interactions and to demonstrate the nature of the more common pathogenic fungi and parasites. Clinical case histories are presented by the clinical staff to correlate this

course with patient care.

Electives

*MIC-242(B). Mechanisms of Microbial Pathogenicity. A lecture-seminar course on the principles and problems of host-parasite interactions at the cellular and molecular level. Emphasis will be on the roles of microbial structures and products in the virulence and pathogenesis of acute, chronic, and toxigenic infectious disease systems. Terms: 3 and 4. Weight: 2. Wheat

*MIC-252(B). General Animal Virology and Viral Oncology. The first half of the course will be devoted to a discussion of the structure and replication of mammalian and bacterial viruses. The second half will deal specifically with tumor viruses, which will be discussed in terms of the virus-cell interaction, the relationship of virus infection to neoplasia, and the role of the immunological response to tumor virus infection. The viral oncology part of the course may be taken for half credit in term 4. In this case, the permission of the instructors is required. Terms: 3 and 4. Weight: 4. Zweerink, Smith, Nichols, and Joklik

*MIC-282(B). Molecular Microbiology. A study of the structure, growth, and replication of bacteria with a detailed analysis of the synthesis and regulation of the structural, informational, and catalytic macromolecules. Major topics covered include: structure, function, and synthesis of bacterial integuments, DNA, RNA, and protein; genetic and metabolic regulatory mechanisms; primitive differentiation in procaryotes. Terms: 1 and 2. Weight: 4. Burns, Leis, Nichols, and Vanaman

MIC-291(B). Basic Immunology. Structure and function of immunoglobulins. Characteristics of synthetic and natural antigens. Specificity and cross-reactivity. Methods of immunologic analysis. Cellular aspects and kinetics of antibody formation. Forms of immunologic responsiveness and unresponsiveness. Cellular cooperation. Elicitation and control of immune response. Terms: 1 and 2. Weight: 3. Scott, Dawson, Snyderman, and Amos

*MIC-296(B). Immunochemistry. The structures, bioassembly, and reactions of the immunoglobulins. Primary and conformational aspects of the immunoglobulin chains—sequences, subgroups, domains, allotypes, evolution. The antibody binding site—location, specificity, idiotypes antigen accommodation. Affinity, heterogeneity, homogeneous binding, kinetics. Sequential, conformational, and quarternary determinants. Active centers of multivalent antigens. The immune responses, affinity and immunoselection, T and B cells. Terms: 3 and 4. Weight: 3. Day, Cresswell, Dawson, and Sage

MIC-304(B). Basic Medical Virology. Topics to be discussed are: structure and replication of major virus groups as a basis for the understanding of viral pathogenesis; cellular and host responses to viral infections; immune responses to and the immunopathology of viral infections; viral epidemiology; DNA and RNA tumor viruses and their possible role in malignancy. Terms: 1 and 2. Weight: 2. Zweerink, Lang, Daniels, and Smith

*MIC-325(B). Medical Mycology. Comprehensive lecture and laboratory coverage of all the fungi pathogenic for humans. Practical aspects as well as future trends in the mycology, immunology, diagnosis, pathogenesis, and epidemiology of each mycotic agent will be explored. There will be several invited lecturers, each an internationally recognized scientist, discussing their particular areas of mycological expertise and current research. Term: July. Weight: 4. Mitchell

*MIC-330(B). Medical Immunology. A course designed to present the basic concepts of immunology as they relate to human disease. Emphasized will be tumor immunology, autoimmunity, neuroimmunology, immunohematology, and immunologic deficiency diseases. Case presentations when appropriate. Terms: 3 and 4. Weight: 6. Levy, C. Buckley, R. Buckley, Snyderman, and Rosse

*MIC-336(B). Immunogenetics. Basic concepts in genetic transmission, recombination, regulation. Elementary population genetics. Antigens of tissues and organs, distribution, extraction, and chemistry. Phylogeny of iso-antigenic systems of man and animals. Tests for histocompatibility including lymphocyte interactions and reactivity. Change in antigenicity and immune responsiveness in carcinogenesis. Immunologic factors in pregnancy and in homotransplantation of organs. Terms: 1 and 2. Weight: 2. Amos and Ward

MIC-339(B). Diagnostic Microbiology and Infectious Diseases. Introduction to the methods for the laboratory diagnosis of infectious disease and their clinical application. The time spent between 8:30-10:30 a.m. involves rounds with the infectious disease group without patient responsibility. The

time between 4:00-5:00 p.m. involves a discussion of the basic science aspects of the diseases seen that morning. Every term. Weight: 4. Suydam Osterhout

MIC-399(B). Preceptorship in Microbiology and Immunology. An individual reading and/or laboratory course in specialty areas supervised by an individual faculty member. Acceptance, nature of topic, and amount of credit by individual arrangement with proposed faculty member. Every term. Weight: 1-8 per 8 weeks. Microbiology and Immunology Staff

MIC-401(B). Pathophysiology of Infectious Diseases. Lecture and seminar course discussing the pathogenesis of infectious diseases including the basic microbiology of the microorganism. This material is presented to allow a better understanding of the means of prevention of infection and the mechanisms of therapy. Term: 4. Weight: 3. Wilfert, Katz, R. Buckley, Cate, Lang, Suydam Osterhout, and Griffith

MIC-403(B). Investigative Problems in Disease Caused by Viruses, Mycoplasmas, Bacteria, and Fungi. Introduction to techniques for research with viruses, mycoplasmas, bacteria, and fungi; clinical experience with infectious diseases related to the investigative programs. The student will be involved in some aspect of laboratory research and should consult with the investigator with whom he would like to work prior to signing up for the course. Every term. Weight: 8. Cate, Lang, Wilfert, Gutman, Hamilton, and Gallis

MIC-405(B). Research in Immunohematology. The course is designed to provide the opportunity for students to select a project involving immunohematologic techniques and to pursue, through original research, the project conclusion. In particular, projects concerned with complement, red cell lysis, and red cell antigens will be stressed. Close supervision will be provided. Weekly seminars in immunohematology will be held. Library readings will be stressed. Terms: 1, 2, 3, or 4. Weight: 6-8. Rosse

*MIC-411(B). Molecular and Cellular Bases of Development and Differentiation. Emphasis is placed on the biochemistry of the cell surface as the basis of cell recognition, control of cell cycle and overall tissue organization. An analysis of protein nucleic acid interactions in chromosome structure and function are considered in light of newer concepts of transcriptional and translational control. Studies also include nuclear cytoplasmic interactions as well as hormone induction of differentiation and development. The course is designed to study the phenomena of development and differentiation and has been organized on a multi-disciplinary level. The course is part of the lecture series of the development and differentiation study program, DDS-201(B). Terms: 1 and 2. Weight: 3-4. McCarty, Counce, Kaufman, and Padilla

*MIC-420(B). Cellular Immunophysiology. The interaction of immunologically active macromolecules such as antibodies or plant agglutinins with membrane surfaces and the resulting effects on membrane function and cell physiology will be the principal topics of this course. Emphasis will be placed on immune reaction mediated permeability changes in red blood cells and certain nucleated mammalian cells as well as on antibody induced alterations of enzyme activities. (See also *PHS-420(B).) Terms: 3 and 4. Weight: 2. Lauf and Staff

*MIC-346(B). Fundamentals of Histocompatibility Testing. A theoretical and laboratory course designed to provide a basic and practical knowledge of current methods of donor selection for bone marrow and organ transplantation. Topics would include identification of HL-A specificities, HL-A genotyping,

mixed lymphocyte culture reactions, lymphocyte responses to mitogens and antigens, lymphocyte-antibody-lymphocyte reactions, lymphocyte and mixed agglutination, cross-match techniques, data storage and retrieval. Terms: 1 and 2. Weight: 3-8. Amos

Obstetrics and Gynecology

Professor: Roy T. Parker, M.D. (Med. Coll. of Virginia, 1944), Choirmon.

Professors: Robert G. Brame, M.D. (North Carolina, 1955); Arthur C. Christakos, M.D. (Med. Coll. of South Carolina, 1955); William T. Creasman, M.D. (Baylor, 1960); M. Carlyle Crenshaw, Jr., M.D. (Duke, 1956); Charles H. Peete, Jr., M.D. (Harvard, 1947).

Associate Professors: George W. Brumley, M.D. (Duke, 1960); Charles B. Hammond, M.D. (Duke, 1961); Stanley A. Gall, M.D. (Minnesota, 1962); David W. Schomberg, Ph.D. (Purdue, 1965).

Associate Clinical Professors: Eleanor B. Easley, M.D. (Duke, 1944); Richard L. Pearse, M.D.

(Harvard, 1931); Kenneth A. Podger, M.D. (Duke, 1941).

Assistant Professors: Sezer Aksel, M.D. (Duke, 1970); Nels C. Anderson, Ph.D. (Purdue, 1964); Lillian R. Blackmon, M.D. (Arkansas, 1963); Lynn G. Borchert, M.D. (Michigan, 1968); Gale Hill, Ph.D. (Duke, 1966); Jarlath MacKenna, M.D. (Univ. Coll., Dublin, 1969); Marcos J. Pupkin, M.D. (Univ. Chile, 1960); John R. Rampone, M.D. (Marquette, 1965); Lee Tyrey, Ph.D. (Illinois, 1969); John C. Weed, Jr., M.D. (Tulane, 1968); R. Herbert Wiebe, M.D. (Univ. of Saskatchewan, 1962).

Assistant Clinical Professors: Trogler F. Adkins, M.D. (Duke, 1936); John V. Arey, M.D. (Harvard, 1946); John R. Ashe, Jr., M.D. (Duke, 1948); Yancey G. Culton, Jr., M.D. (Duke, 1956); Lance T. Monroe, M.D. (New York Coll. of Med., 1932); Donald T. Moore, M.D. (Meharry Med. Coll., 1958); William A. Nebel, M.D. (North Carolina, 1962); Philip H. Pearce, M.D. (Duke, 1960); Roston M. Williamson, M.D. (Med. Coll. of Georgia, 1951); Robert K. Yowell, M.D. (Duke, 1961).

Associates: James L. Allen, M.D. (Emory, 1965); David B. Crosland, M.D. (North Carolina, 1958); Jerry Lee Danford, M.D. (Duke, 1967); Carl A. Furr, Jr., M.D. (North Carolina, 1958); Arned L. Hinshaw, M.D. (North Carolina, 1965); Clayton J. Jones, M.D. (Tennessee, 1952); Richard E. Lassiter, M.D. (North Carolina, 1965); Thomas A. Stokes, Jr., M.D. (Duke, 1955).

Research Associates: Marshall Case, B.S.; Louise A. Kaufmann, B.A.; Larry Kodack, B.A.

Required Course

The first year student receives instruction in the fundamentals of obstetric and gynecologic history and pelvic examinations during the course, the Introduction to Clinical Medicine.

OBG-202—required of all second year students—consists of eight weeks in general obstetrics and gynecology. Students attend lectures, work daily in the general and special outpatient clinics, and are assigned patients on the obstetric and gynecologic wards. Students share in patient care and teaching exercises, and the senior faculty participates in daily tutorial sessions. Clinical conferences, a gynecologic-pathology conference, an endocrine conference, and correlative seminars and lectures are included.

Electives

OBG-205(C). Gynecologic Cancer. A survey of malignancy of the reproductive system. The didactic portion of the course is supplemented by presentations of patients currently in therapy on the wards and in the Gynecologic Cancer Clinic. Every term. Weight: 4 or 8. Creasman, Parker, and Rampone

OBG-207(C). Pathology: Obstetrical and Gynecological. Study of normal and pathologic processes in the female in the field of obstetrics and gynecology. Current gross and histologic specimens reviewed along with related material in study collections. Clinical, experimental, and theoretical correlations made when applicable. Every term. Weight: 1 or 2. Rampone, Brame, and Gynecology Resident on Surgical Pathology

OBG-211(C). Preparation for Practice. For students preparing for:

general practice, pediatrics, general surgery, and internal medicine. Inpatient and outpatient duties as an intern in obstetrics and gynecology. Special lectures in obstetric management and office gynecology with emphasis on good practice techniques. Every term. Weight: 8. Parker, Brame, and Staff

- **OBG-215(C).** The Infertile Couple. A clinical study of infertility in the human for students who desire additional instruction in examination, diagnosis, and treatment of the infertile couple. Assigned reading of pertinent medical literature both historical and current is correlated with clinical observation in patients. The student is made familiar with testing techniques and the use of required apparatus and instruments, and participates in the treatment of patients. Terms: 1, 2, 3, or 4. Weight: 4. Hammond, Peete, Wiebe, and Gynecology Fellows
- **OBG-229(C).** Endocrinology Seminar. Sessions with discussion of interesting clinical problems and related clinical and basic research in gynecologic endocrinology. Terms: 1, 2, 3 or 4. Weight: 1. Hammond, Weibe, Anderson, Schomberg, Tyrey, and Fellows on Endocrine Division
- **OBG-231(C).** Basic and Clinical Reproductive Endocrinology. Course for students who desire additional basic and clinical instruction in examination, diagnosis, and treatment of obstetric and gynecologic patients with endocrinopathy. Course consists of basic instruction in neuroendocrine and endocrine mechanisms correlated with examination and treatment of patients in the Endocrinology Outpatient Clinic. Every term. Weight: 4. Hammond, Wiebe, Anderson, Schomberg, Tyrey, and Fellows on Endocrine Division
- **OBG-235(C).** Cytogenetics. In-depth course in human cytogenetics in which basic techniques of studying human chromosomes are applied to clinical situations. Research in human cytogenetics is also stressed. Terms: 1, 2, 3, or 4. Weight: 3. Christakos
- **OBG-239(C).** Perinatal Medicine. A study of clinical factors during pregnancy, labor, delivery, and first month of life. Emphasis will be placed on abnormal conditions of pregnancy as related to the infant, prenatal pathological conditions adversely afflicting the fetus and newborn, and early management of the infant. Current problems in maternal-fetal relationships will be outlined. The clinical rotation will consist of half time in the delivery room and half time in the nursery. (FTN and ICN.) (See also PED-239(C).) Every term. Weight: 8. Blackmon and Crenshaw
- **OBG-241(C).** Family Life Sciences. A clinical correlative study designed to apply contraceptive techniques, genetic counseling, sex education, and demography in the practice of obstetrics and gynecology. Social implications in these various areas will be included. Every term. Weight: 4. Christakos and Brame
- **OBG-243(C). Sex Education.** This course is designed to prepare health professionals for dealing with situations involving sex education and counseling. The course consists of two parts, a ten week series of training seminars and sensitivity sessions surveying biological, psychological, sociocultural, and ethical aspects of human sexuality and also providing instruction on techniques of design, organization, and implementation of educational and counseling programs. The final eight weeks of the course will be spent gaining practical experience. The student's project may be of his own design, approved by the Committee, or he may participate in one of the ongoing projects of the Committee such as teaching the seventh grade curriculum in the public schools,

writing curricula for other grade levels, or designing a course on the college level. Terms: 1 and 2 or 3 and 4. Weight: 3. Parker, Katz, Christakos, and Shirley Osterhout

OBG-245(C). Office Gynecology. For students preparing for: general practice, medicine, pediatrics, and surgery. Outpatient clinic and emergency room diagnosis and patient care are taught. Every term. Weight: 4 or 8. Parker and Staff

OBG-247(C). Clinical Obstetrics. For students preparing for: general practice and medicine or pediatrics. Ante-partum, intra-partum, and post-partum patient care are stressed and practical experience in the delivery room is provided at an intern level. Every term. Weight: 4 or 8. Crenshaw, Pupkin, and Staff

OBG-249(C). Clinical Gynecology. For students preparing for general practice, surgery, and urology. Preoperative diagnosis and preparation and postoperative care are stressed. In addition, minor operative procedures are taught and students assume the responsibilities of an intern. Every term. Weight: 4 or 8. Peete, Brame, and Staff

OBG-251(C). Advanced Reproductive Endocrinology. An in-depth program to involve students in detailed study of the clinical and laboratory aspects and literature regarding reproductive biology, endocrinology, infertility, and conception control. Course consists of participation in the gynecologic endocrinology clinics, complicated obstetric clinic, infertility clinics, care of inpatients, and pertinent laboratory exposure to techniques of study of reproductive hormonal substances. Every term. Weight: 8. Hammond, Wiebe, Anderson, Schomberg, Tyrey, and Fellows on Endocrine Division



OBG-253(C). Preparation for Practice, Cabarrus Memorial Hospital. This is a unique opportunity to receive both didactic exposure and clinical experience in Obstetrics and Gynecology at Cabarrus Memorial Hospital, a 400bed community hospital in Concord, North Carolina. A student will be expected to function as an intern. He will actively participate in the care of patients in the labor and delivery rooms, assist at surgery, render postoperative care and be exposed to the office practice of obstetrics and gynecology in a small community. The student will be provided a room, and he will be responsible for meals (available at hospital). This elective can be mixed, 4 weeks at Cabarrus and 4 weeks at Duke but not for a smaller septum. Every term. Weight: 8 (or 4). Parker, Ashe, and Staff of Duke and Cabarrus

Ophthalmology

Professor: Joseph A. C. Wadsworth, M.D. (Duke, 1939), Chairman. Clinical Professor: Myron L. Wolbarsht, Ph.D. (Johns Hopkins, 1958).

Clinical Professor: Hermann M. Burian, M.D. (Belgrade, Yugoslavia, 1930).

Associate Professors: W. Banks Anderson, Jr., M.D. (Harvard, 1956); Arthur C. Chandler, Jr., M.D. (Duke, 1959); Maurice B. Landers, III, M.D. (Michigan, 1963).

Assistant Professors: John W. Reed, M.D. (Bowman Gray, 1962); Charles F. Sydnor, M.D.

(Virginia, 1969).

Associates: Judy H. Seaber, B.A. (Emory, 1962); M. Bruce Shields, M.D. (Oklahoma, 1966). Clinical Associates: Robert E. Dawson, M.D. (Meharry, 1943); Martin J. Kreshon, M.D. (Marquette, 1954); W. Hampton Lefler, M.D. (Bowman Gray, 1963); Samuel D. McPherson, Jr., M.D. (Johns Hopkins, 1943); Noel W. Young, Jr., M.D. (Duke, 1963). Clinical Instructor: Larry Turner, M.D. (Duke, 1939).

Electives

OPH-201(C). Investigative Ophthalmology. The student is assigned a project relating to basic ophthalmologic problems. Technical assistance, sufficient equipment and laboratory animals are supplied for the completion of the project. The student is expected to attend lectures scheduled for the house staff. Every term. Weight: 4-8, Anderson, Landers, and Wolbarsht

OPH-203(C). General Ophthalmology. A clinical preceptorship in which the student will participate and observe in the regular housestaff activities. conferences, lectures, patient care, and treatment, including surgery. Emphasis on the use of specialized ophthalmic apparatus is emphasized. Every term. Weight: 3-8. Landers and Chandler

OPH-205(C). Medical Ophthalmology. The ophthalmic signs and symptoms of systemic disease are presented through patient examination and lectures. Oriented for those students interested primarily in pediatrics, internal medicine, or ophthalmology. Terms: 1, 2, 3, or 4. Weight: 1. Chandler and Staff

OPH-207(C). Basic Ophthalmic Sciences. Course designed primarily for those students intending to specialize in ophthalmology and will cover optics. ocular anatomy, physiology, pathology, pharmacology, and numerous ophthalmic disease processes. Many outstanding guest speakers. Terms: 1, 2, 3, or 4. Weight: 1. Wadsworth, Staff, and Outside Contributors

OPH-211(C). Neuro-Ophthalmology. Experience is provided in application of ophthalmic diagnostic technique toward the diagnosis of central nervous system and related ocular diseases. Clinical case and research review is included. Special instrument utilization is emphasized. Terms: 1, 2, 3, or 4. Weight: 1 or 2. Anderson and Sydnor

OPH-213(C). Ophthalmic Pathology. The student will review all ophthalmic pathology specimens submitted weekly and any pertinent permanent specimens. He will aid in presentation of cases at weekly ophthalmic pathology conferences. Every term. Weight: 1. Wadsworth

OPH-215(C). Ocular Diseases in Children. The study of ocular disease in children includes muscular imbalances, congenital disorders, and neoplastic diseases to acquaint the student with a special pediatric and ophthalmologic phase. Terms: 1, 2, 3, or 4. Weight: 1. Chandler

Pathology

Professor: Robert B. Jennings, M.D. (Northwestern, 1950), Choirmon.

Thomas D. Kinney, M.D. (Duke, 1936), Choirmon Emeritus and R. J. Reynolds Professor of Medical Education.

Professors: Bernard F. Fetter, M.D. (Duke, 1944); Donald B. Hackel, M.D. (Harvard, 1946); William W. Johnston, M.D. (Duke, 1959); Gordon K. Klintworth, M.D. (Univ. of Witwatersrand, S. Africa, 1957), Ph.D. (Univ. of Witwatersrand, S. Africa, 1966); Philip C. Pratt, M.D. (Johns Hopkins, 1944); Joachim R. Sommer, M.D. (Munich, 1951); F. Stephen Vogel, M.D. (Western Reserve, 1944); Benjamin Wittels, M.D. (Minnesota, 1952).

Associate Professors: William D. Bradford, M.D. (Western Reserve, 1958); Darell D. Bigner, M.D. (Duke, 1965), Ph.D. (Duke, 1971); Charles A. Daniels, M.D. (Vanderbilt, 1966), Ph.D. (Duke, 1971); Jane G. Elchlepp, M.D. (Chicago, 1955), Ph.D. (Iowa, 1948); C. Craig Tisher, M.D. (Washington Univ., 1961); Frances King Widmann, M.D. (Case Western Reserve, 1960); Peter Zwadyk, Ph.D. (Iowa, 1971).

Assistant Professors: Dolph O. Adams, M.D. (Med. Coll. of Georgia, 1965), Ph.D. (North Carolina, 1972); Peter H. Anderson, Ph.D. (Oregon, 1972); Edward H. Bossen, M.D. (Duke, 1965); Peter Burger, M.D. (Northwestern, 1966); Frank Dorsey, Ph.D. (Duke, 1971); Jane T. Gaede, M.D. (Duke, 1966); Doyle G. Graham, M.D. (Duke, 1966), Ph.D. (Duke, 1971); Hal K. Hawkins, M.D. (Duke, 1972), Ph.D. (Duke, 1971); Ralph C. McCoy, M.D. (Emory, 1967); John D. Shelburne, M.D. (Duke, 1972), Ph.D. (Duke, 1971).

Associates: Patricia Ruth Ashton, A.B. (Goucher College, 1963); John M. Harrelson, M.D. (Duke, 1965); J. E. Phillip Pickett, H.T.; Margaret C. Schmidt, M.A. (Louisville, 1969); Paul C. Tucek, D.V.M. (Illinois, 1970).

Research Associates: Lieselotte Kemper; Eileen Mikat, M.A. (Duke, 1969).

Required Course

PTH-200—the core course in pathology—is given during the second term of the first year. Fundamentals of pathology are presented by correlating gross and microscopic material to illustrate the structural changes in dissease. Lectures dealing with broad concepts of disease processes are presented by senior faculty and conferences with small groups of students are held under the guidance of staff members. Etiology and pathogenesis of disease as well as the experimental approach are emphasized for the purpose of correlation with clinical disease. In addition to group work, conferences are scheduled to discuss problems derived from autopsies. Students are required to collaborate in postmortem studies and present cases in clinical-pathologic conferences under the direction of the staff.

Electives

*PTH-201(B). The Pathologic Basis for Clinical Medicine. Disease processes will be studied in terms of organ systems, with the intention of enabling students to crystallize the basic processes studied in Pathology 200. Clinicopathologic correlation will be stressed, utilizing gross and microscopic examples of disease processes, case studies, lectures, and demonstrations. This is a survey course and does not treat any one subject in great depth. Term: 1. Weight: 4. Hackel and Staff

*PTH-203(B). Ophthalmic Pathology. This course is designed for students with an interest in ophthalmic diseases and particularly for those planning a career in pathology or ophthalmology, and will consist of lectures, seminars, and laboratory sessions. The normal anatomy, and embryology of the eye will be reviewed, and the various reactions of the eye to injury will be studied in gross and microscopic specimens. The more common diseases will be considered in detail. Term: 1. Weight: 3. Klintworth

PTH-209(B). Diagnostic Cytopathology. This course is designed to explore in detail the role played by clinical exfoliative cytopathology in the diagnosis of disease. Classroom and laboratory work will include diseases involving the female genital tract, upper and lower respiratory tract, urinary tract, body cavities, GI tract, and central nervous system. Emphasis will be on neoplastic disease. Practical application of the acquired knowledge will be made in examining current material. Microscopes required. Term: 1. Weight: 3. Johnston and Staff

PTH-223(B). Autopsy Pathology. The course is intended to introduce students to the autopsy as an investigative tool; anatomic-clinical correlation is emphasized. Students work directly with one or more members of the Pathology Department. They will first assist at autopsies and then perform autopsies under supervision. They will work up these cases with particular attention to correlations with clinical and experimental medicine, prepare the final autopsy reports on them, and will work essentially at the level of a house officer. Students will be expected to present their findings at staff conferences. Every term. Weight: 8. Adams and Staff

*PTH-225(B). Cardiovascular Pathology. Cardiovascular disease processes will be studied, reviewing anatomic, embryologic, and physiologic features, and utilizing case material and gross and microscopic specimens. Clinicopathologic correlation will be stressed. Term: 1. Weight: 2. Hackel

PTH-237(B). Surgical Pathology. This course is designed for the student who wishes more experience in the study of disease. Although the course is entitled Surgical Pathology, this does not imply interest solely in the individual oriented to surgery. Problems in dermatology, gynecology, orthopaedics, general surgery, internal medicine, and other specialties will be considered. The program of study will consist of lectures, demonstrations, and laboratory work. Microscope required (limited number available on loan). Term: 4. Weight: 4. Fetter

PTH-342(B). Special Topics in Pathology. Special problems in pathology will be studied with a member of the senior staff; the subject matter will be individually arranged. Every term. Weight: 1-8 per 8 weeks. Kinney and Staff

*PTH-346(B). Subcellular and Molecular Pathology. This course is designed for students wishing to broaden their knowledge of cellular structure and cellular pathology. A series of lectures and seminars will be held to discuss the alterations in cellular structure and associated function that accompany cell injury. Ultrastructural changes in selected human diseases will be discussed in detail with emphasis on diagnosis and pathogenesis. Terms: 1 and 2. Weight: 3. Hawkins, Shelburne, and Sommer

PTH-348(B). Practical Surgical Pathology. This course will be in the form of an apprenticeship in which the student will become engaged in the actual preparation and diagnosis of tissue changes. Microscope required (limited number available on loan). Every term. Weight: 8. Fetter and Staff

- *PTH-352(B). Biochemical Pathology. In a series of seminars, the morphology of several disease states will be integrated with their biochemical abnormalities. Utilization of experimental models on resolving the related problems in pathogenesis will be discussed. Disorders in lipid metabolism will be emphasized. Term: 2. Weight: 2. Wittels
- *PTH-353(B). Advanced Neuropathology. A review of neuropathology emphasizing correlation with problems of human disease. Term: 1. Weight: 3. Vogel and Staff
- *PTH-359(B). Fundamentals of Electron Microscopy. Emphasis will be placed on the theory and application of electron microscopy to ultrastructural pathology. The methods relating to electron microscopy as well as phase and polarization microscopy will be considered. Laboratory experience will be included. Terms: 1 and 2. Weight: 2. Hawkins, Shelburne, and Sommer
- *PTH-360(B). Histochemistry. Theoretical basis of methods for cellular and subcellular localization of chemical constituents. Lectures and laboratory sessions emphasizing modern techniques for tissue preservation and intracellular localization and identification of natural products and enzymes. Terms: 3 and 4. Weight: 3. Jauregui, Shelburne, Hawkins, Daniels, Bossen, and McCoy
- *PTH-362(B). Pathology of the Kidney. This course is a comprehensive study of pathological, immunological, and clinical features of the various types of glomerulonephritis, nephrotic syndrome, and pyelonephritis as well as of metabolic, congenital, and neoplastic renal disorders. Lectures will be supplemented with gross and microscopic specimens, demonstrations, and special library studies. Term: 2. Weight: 3. Tisher and McCoy
- PTH-364(B). Orthopedic Pathology. Special problems in orthopedic pathology will be dealt with beginning with a discussion of the development of connective tissue with special emphasis on bone and muscle. Bone tumors, metabolic diseases, and traumatic problems will be considered. Term: 4. Weight: 2. Harrelson
- *PTH-366(B). Pulmonary Pathology and Post-Mortem Pathophysiology. Emphasis will be on pulmonary pathology and pathophysiology of infectious, metabolic, environmental, and neoplastic diseases, and certain diseases of unknown etiology (e.g. sarcoid, alveolar proteinosis, etc.). Ventilatory experiments will be done on excised human lungs. Term: 2. Weight: 3. Pratt
- **PTH-368(B).** Neonatal and Pediatric Pathology. This is a survey course covering important topics in developmental anatomy and major pathologic processes of brain, lung, gastrointestinal, and urinary tracts. Emphasis is placed on clinico-pathologic correlation, and students assume responsibility for presentation of clinico-pathologic conferences, seminars, gross and microscopic laboratory materials. Designed for students entering clinical pediatrics and pathology. Term: 3. Weight: 3. Bradford
- PTH-371(B). The Laboratory Basis for Clinical Medicine. This course will emphasize evaluation and interpretation of laboratory data relative to pathophysiologic processes. Development of judgment and selectivity in utilizing laboratory tests will be taught. Course will consist of lectures and laboratory/conferences. Clinical-pathologic correlation will be stressed by detailed case studies of specific patients. Term: summer. Weight: 2. Gaede, Widmann, Pratt, Miller, Anderson, and Zwadyk

PTH-372(B). Environmental Diseases. The course features guest lecturers and student presentations to cover examples of disease produced by technological exploitation of the earth, and life style. Subjects include population, respiration-air and ocean, and examples of diseases due to asbestos, lead, mercury, hydrocarbons, carcinogens, organic dusts, DDT, cigarette smoke, etc. Term: 3. Weight: 2. Pratt and Lynn

PTH-374(B). Pulmonary Structure and Function Seminar. Current and exemplatory pathological material on lungs, including gross, histologic and electron microscopic data, is correlated with in vitro function and clinical features; physiological measurements; and roentgenographic findings. The structural features of the types of reaction of lung cells to injury are interpreted against this background. Such demonstration material is correlated by lectures. Every term. Weight: 1. Pratt and Lynn

*PTH-375(B). Immunopathology. A study of the patho-anatomy of diseases of man in which the immune system plays an important role, including auto-immune diseases, the "collagen" diseases, graft rejection, and immunologic aspects of cancer. The format will consist of a series of lectures on the clinico-pathological changes seen in immunopathological diseases of man. Term: 4. Weight: 1. Daniels, Adams, Bigner, and McCoy

*PTH-376(B). Pathology of Virus Infections. In this course the pathological effects of viruses will be discussed. The format will consist of a series of student-oriented seminars, and microscopic studies of human case materials. The clinical, pathological, immunological, and epidemiological aspects of human virus diseases will be stressed. Terms: 1 and 2. Weight: 3. Daniels

PTH-378(B). Seminars in Hematology. This is a systematic survey of the pathophysiology and morphology of human hematological diseases. Each student will survey the literature on several topics and prepare an oral presentation which will be critically discussed by the group. Opportunity for experience in blood, marrow, and lymph node analysis will be available. Term: 3. Weight: 2. Wittels



PTH-380(B). Surgical Pathology-Emphasis: Electron Microscopy. This course will be in the form of an apprenticeship in which the student will become engaged in the actual preparation and diagnosis of tissue changes using both light and electron microscopy. The student will of necessity learn how to operate the electron microscope. Terms: 1 and 2, and summer. Weight: 8. Gonzalvo and Shelburne

*PTH-411(B). Molecular and Cellular Bases of Development and Differentiation. Emphasis is placed on the biochemistry of the cell surface as the basis of cell recognition, control of cell cycle and overall tissue organization. An analysis of protein nucleic acid interactions in chromosome structure and function are considered in light of newer concepts of transcriptional and translational control. Studies also include nuclear cytoplasmic interactions as well as hormone induction of differentiation and development. The course is designed to study the phenomena of development and differentiation and has been organized on a multi-disciplinary level. The course is part of the lecture series of the development and differentiation study program, DDS-201(B). Terms: 1 and 2. Weight: 3-4. McCarty, Counce, Kaufman, and Padilla

Pediatrics

Wilburt C. Davison Professor: Samuel L. Katz, M.D. (Harvard, 1952), Chairmon.

Professors: Jay M. Arena, M.D. (Duke, 1932); Susan C. Dees, M.D. (Johns Hopkins, 1934); William J. A. DeMaria, M.D. (Duke, 1948); Thomas E. Frothingham, M.D. (Harvard, 1951); Herman Grossman, M.D. (Columbia. 1953); James B. Sidbury Professor Jerome S. Harris, M.D. (Harvard, 1933); David J. Lang, M.D. (Harvard, 1958); F. Stanley Porter, M.D. (Johns Hopkins, 1952); James B. Sidbury, Jr., M.D. (Columbia, 1947); Madison S. Spach, M.D. (Duke, 1954).

Associate Professors: Roger C. Barr, Ph.D. (Duke, 1968); George W. Brumley, M.D. (Duke, 1960); Rebecca H. Buckley, M.D. (North Carolina, 1958); John F. Griffith, M.D. (Saskatchewan, 1958); A. W. Renuart, M.D. (Duke, 1955); Donald Silver, M.D. (Duke, 1955); Alexander Spock, M.D.

(Maryland, 1955); Catherine M. Wilfert, M.D. (Harvard, 1962).

Assistant Professors: Page A. W. Anderson, M.D. (Duke, 1963); Lillian Blackmon, M.D. (Arkansas, 1963); William D. Bradford, M.D. (Western Reserve, 1958); Gordon Burch, M.D. (Univ. of Alberta, 1967); M. C. Crenshaw, Jr., M.D. (Duke, 1956); John A. Fowler, M.D. (Bowman Gray, 1946); Laura T. Gutman, M.D. (Stanford, 1963); Stuart Handwerger, M.D. (Maryland, 1964); Harold J. Harris, M.D. (Long Island Coll. of Med., Brooklyn, 1949); J. David Jones, M.D. (Duke, 1954); Ronald P. Krueger, M.D. (Duke, 1965); Shirley K. Osterhout, M.D. (Duke, 1957); Charles R. Roe, M.D. (Duke, 1964); Malcolm H. Rourk, Jr., M.D. (Pennsylvania, 1963); Jaime Zusman, M.D. (Johns Hopkins, 1969).

Associates: Joanne Barton, M.Sc. (Kentucky, 1974); Kwok-Sing Cheung, Ph.D. (Saskatchewan, 1971); C. Drew Edwards, Ph.D. (Florida State, 1972); Sam Edwards, M.D. (Duke, 1968); Deborah Kredich, M.D. (Michigan, 1962); Michael Oliphant, M.D. (Cornell, 1967); Aglaia N. O'Quinn,

M.D. (Duke, 1965); Roberta Smith, M.D. (Duke. 1966).

Consultant and Lecturer: Arthur H. London, M.D. (Pennsylvania, 1927); Angus M. McBryde,

M.D. (Pennsylvania, 1928).

Associate Clinical Professors: William L. London, M.D. (North Carolina, 1955); George M. Lyon, M.D. (Duke, 1961); Evelyn Schmidt, M.D. (Duke, 1951); Theodore Scurletis, M.D. (Pittsburgh,

1951); Bailey D. Webb, M.D. (Duke, 1946), Ph.D. (North Carolina, 1941).

Assistant Clinical Professors: Clarence Bailey, M.D. (North Carolina, 1958); William A. Cleland, M.D. (Howard, 1933); Nelle S. Moseley, M.D. (Med. Coll. of Georgia, 1957); Charles B. Neal, M.D. (Duke, 1955); A. Douglas Rice, M.D. (Duke, 1951); S. Winston Singleton, M.B. (Manchester, England, 1952); Martha Valiant, M.D. (Duke, 1969); W. Samuel Yancy, M.D. (Duke, 1965).

Clinical Associates: Lillis Altshuller, M.D. (Cincinnati, 1960); James B. Rouse, M.D. (Duke.

1965); Janice D. Stratton, M.D. (Tulane, 1961); Joseph Whatley, M.D. (Duke, 1958).

Required Course

PED-200—The basic course in pediatrics for all students—is an eight week clerkship in the second year. Its principal aim is to provide the student with an exposure to the field of child health. The student is exposed to a varying series of experiences which should give him a grasp of the concepts that underlie the discipline. His goals should be to acquire familiarity and competence with the basic tools of information gathering—the history, physical examination, and laboratory data—and to develop an approach to the integration of this material for the solution of problems of health and illness in infancy, childhood, and adolescence. This should be accomplished with continuing reference to the basic principles of pathophysiology encountered in his first year courses.

Those patients to whom the student is assigned will provide the focus for his studies. In addition to the careful history and physical examination which he records, the student is expected to organize an appropriate differential diagnosis and to seek and read pertinent reference material relevant to his patients. He should learn to present each case verbally in an organized and succinct fashion, to follow the progress of his patients, and to interpret all studies which are performed. The student is expected to learn from a number of sources: standard textbooks and journals, current publications and conferences, and also from people—house staff, faculty, nurses, parents, and all others with whom he has contact in the study of his patients.

His objectives should also include an understanding of the roles played in pediatrics by other members of the health care team, both in the ambulatory and hospital settings. Patient care may include nurse, social worker, recreation therapist, psychologist, physiotherapist, dietitian, and/or others. His eight weeks will be divided so that his experience will include time in two of the following settings:outpatient clinics and emergency room, Howland Ward, nurseries (full term and intensive care), and a community hospital (Watts). Usually, it is possible to schedule some of these assignments to meet student preference.

Electives

PED-201(C). General Pediatrics. Student is assigned to the ward, ambulatory services, community program and/or nurseries according to his interests and goals. In general, he will have an intensive apprenticeship in pediatrics with learning experiences stemming directly from the patient and his problems. Students wishing to take Pediatrics 201(C) must arrange first with Dr. Ronald Krueger and/or Dr. Thomas Frothingham the format of their experience. This is to be done well in advance of the term in which the course will be taken. The experience may be entirely inpatient, outpatient, or a mixture of each. Planning is essential so that the term meets the student's needs but does not crowd the available learning space. Every term. Weight: 8. Katz and Pediatric Staff

PED-202(C). Pediatric Infectious Diseases. This course will provide experience in the clinical and laboratory diagnosis of infectious diseases and in their therapy. The student works closely with the Infectious Disease fellow and participates actively in evaluation of patients. There is opportunity to gain experience in a laboratory setting (bacteriology, virology). Every term. Weight: 8. Lang, Frothingham, Gutman, Katz, Wilfert, and Staff

PED-203(C). Pediatric Neurology. Student will examine patients with neurological and convulsive disorders in the wards and clinics of Duke Hospital, at the Lennox D. Baker Cerebral Palsy Hospital, the developmental evaluation clinic, and in the inpatient facilities of Murdoch Center. Emphasis is placed on the neurological examination, investigation, and management of acute and chronic nervous system disorders of childhood. Research opportunities are also available for the interested student. Terms: 1, 2, 3, or 4. Weight: 8. Griffith, Renuart, and Staff

PED-215(C). Metabolic and Endocrine Disorders in Children. Outpatient and inpatient study of a variety of metabolic disorders. Student sees clinical endocrine patients by participation in Pediatric Endocrine Clinics. Stress is placed upon application of hormone assay to the diagnosis of endocrine disorders in childhood. Every term. Weight: 8. Sidbury, Handwerger, Roe, and Moseley

PED-217(C). Pediatric Hematology and Oncology. Includes all aspects of clinical and laboratory pediatric hematology as well as the diagnostic evaluation, care, and treatment of patients with malignant diseases. Emphasis will be placed on fundamental concepts. There will be daily ward rounds, a weekly clinic, weekly slide conferences, and weekly seminars, as well as assigned reading. Students will be encouraged to engage in some individual clinical or laboratory project during the period of the course. Every term. Weight: 8. Porter, Lyon, and Zusman

PED-221(C). Poison Control. Primarily a seminar course with one two-hour conference per week scheduled for student discussion on assigned topics. The student may participate in clinical functions of the center and, if he wishes, may be on call for the treatment of these cases in the emergency room or the ward at his discretion. This is a student-oriented teaching program and individual projects on the subject may also be carried out. Terms: 1, 2, 3, or 4. Weight: 2. Shirley Osterhout

PED-223(C). The Pediatrician in the Community. Beyond the walls of the hospital and medical center, the pediatrician performs a number of services. He may conduct a private office practice the leadership of which demands high competence in the art and science of medicine and continuing imaginative adaptation to changing patterns of community health problems. He must assume a central role as the child's advocate in connection with pressures from enthusiasts for particular child-rearing practices. As a consultant, he may profoundly influence for better or worse local school, health department, and service-organization programs. In the care of patients with developmental disability he must know how to work with a wide variety of specialized professionals in order to achieve the best possible diagnosis and management of these complex problems. We hope to introduce the student to these matters through discussions with faculty, reading, and observation of professionals at work in the areas mentioned above. The student is encouraged to select areas for in-depth examination and active participation according to his interests, background, and anticipated career goals. Every term. Weight: 8. Frothingham

PED-225(C). Neonatology. Students will have patient care responsibilities and experiences in the Full Term Newborn and Intensive Care Nurseries. Included will be discussions of prenatal hazards, resuscitation, care of the normal newborn and premature infant. Emphasis is placed on the initiation of parent-child relationships and the management of the normal and stressed neonate. Every term. Weight: 8. Blackmon and R. Smith

PED-227(C). Behavioral Aspects of Pediatric Illness. The purpose of this course is to introduce the student to the emotional aspects of sick children. Experience will include the impact on the family as well as the psychic and somatic adjustments of the child. (See also PSC-227(C).) Terms: 1, 2, 3, or 4, and summer. Weight 3-6. Jones, Edwards, Borstelmann, and Ms. Ivler

PED-231(C). Clinical Pediatric Cardiology. Provides an intensive learning experience in clinical childhood heart disease. Scope: history, physical examination, and special techniques (electrocardiography, phonocardiography, echo-

cardiography, cardiac catheterization, and cineangiocardiography). Every term. Weight: 8. Spach, Anderson, Benson, Edwards, and Serwer

PED-233(C). Allergy, Clinical Immunology, and Pulmonary Diseases. Clinical evaluation and practice in use of methods and diagnosis and treatment of allergic disorders, cystic fibrosis and other pulmonary diseases, immunologic deficiency states and autoimmune disorders. Scope: history, physical examination, skin and pulmonary function tests, allergen preparation, sweat testing, and a variety of clinical immunologic tests. Every term. Weight: 8. R. Buckley, S. Dees, Spock, and Rourk

PED-239(C). Perinatal Medicine. A study of factors during pregnancy, labor, delivery, and the first month of life. Emphasis will be placed on abnormal conditions of pregnancy as related to the infant, prenatal pathological conditions adversely afflicting the fetus and newborn, and early management of the infant. Current problems in maternal-fetal relationships will be outlined. The clinical rotation will consist of half time in the delivery room and half time in the nursery. (FTN and ICN.) (See also OBG-239(C).) Every term. Weight: 8. Blackmon and Crenshaw

PED-241(C). Pediatric Nephrology. Course is designed to provide experience in diagnosis, natural history, and treatment of acute and chronic disorders of the kidney in children. Students are also exposed to the management of fluid and electrolyte disorders in infants and children. Every term. Weight: 6-8. Krueger and DeMaria

PED-243(C). Adolescent Medicine. Students will see adolescents in outpatient clinic. Emphasis to be placed on the behavioral and developmental aspects of adolescence, drug abuse, and the pregnant teenager. Tutorial and supervisory time to discuss specific patients and pertinent literature will be arranged. Every term. Weight: 2. Yancy

Physiology and Pharmacology

Professor Daniel C. Tosteson, M.D. (Harvard, 1949), Choirmon. Professor Toshio Narahashi, Ph.D. (Univ. of Tokyo, 1960), Vice-Choirmon.

DIVISION OF PHYSIOLOGY

Associate Professor)ohn V. Salzano, Ph.D. (Iowa, 1956), Heod of Division. James B. Duke Professor: Daniel C. Tosteson, M.D. (Harvard, 1949).

Professors: Jacob J. Blum, Ph.D. (Chicago, 1952); Irving T. Diamond, Ph.D. (Chicago, 1953);

Frans F. Jöbsis, Ph.D. (Michigan, 1958); Edward A. Johnson, M.D. (Univ. of Sheffield, 1953); John W. Moore, Ph.D. (Virginia, 1954); George F. Somjen, M.D. (New Zealand, 1961).

Associate Professors: Nels C. Anderson, Ph.D. (Purdue, 1964); Robert P. Erickson, Ph.D. (Brown, 1958); Robert E. Fellows, M.D. (McGill, 1959), Ph.D. (Duke, 1969); Peter K. Lauf, M.D. (Univ. of Freiburg, 1960); Melvyn Lieberman, Ph.D. (State Univ. of New York, Downstate Med. Center, 1964); Thomas J. McManus, M.D. (Boston, 1955); Lorne Mendell, Ph.D. (Massachusetts Inst. of Tech., 1965); Elliott Mills, Ph.D. (Columbia, 1964); George M. Padilla, Ph.D. (California

at Los Angeles, 1960); John V. Salzano, Ph.D. (Iowa, 1956).

Assistant Professors: Reginald Carter, Ph.D. (Bowman Gray, 1970); Walter Duran, Ph.D. (Catholic Univ. of Chile, 1965); Balz F. Gisin, Ph.D. (Univ. of Basel, 1967); Robert B. Gunn, M.D. (Harvard, 1966); John Gutknecht, Ph.D. (North Carolina, 1963); James E. Hall, Ph.D. (California at Riverside, 1968); Franklin G. Hempel, Ph.D. (Texas, 1969); R. Gary Kirk, Ph.D. (Yale, 1969); J. Mailen Kootsey, Ph.D. (Brown, 1966); Lazaro J. Mandel, Ph.D. (Pennsylvania, 1969); Thomas T. Norton, Ph.D. (California, 1970); Theo Pilkington, Ph.D. (Duke, 1963); Patricia Prinz, Ph.D. (Stanford Univ., 1969); Fidel Ramon, Ph.D. (Duke, 1974); Myron Rosenthal, Ph.D. (Duke, 1969); James M. Schooler, Jr., Ph.D. (Wisconsin, 1964); Magdalena Tosteson, Ph.D. (Univ. of Buenos Aires, 1962); Howard Wachtel, Ph.D. (New York Univ., 1967).

Associate Clinical Professors: James Clapp, M.D. (North Carolina, 1957); J. A. Kylstra, M.D.

(Leiden, Netherlands, 1952); Myron Wolbarsht, Ph.D. (Johns Hopkins, 1958).

Assistant Clinical Professors: Wesley A. Cook, Jr., M.D. (Oregon, 1963); Antonio V. Escueta, M.D. (Univ. of Santo Tomas, Manila, 1963); Joseph Greenfield, M.D. (Emory, 1956); R. Scott Jones, M.D. (Texas, 1961); Harold E. Lebovitz, M.D. (Pittsburgh, 1956); Aaron P. Sanders, Ph.D. (North Carolina, 1964); David W. Schomberg, Ph.D. (Purdue, 1965); Andrew G. Wallace, M.D. (Duke, 1959); William E. Yarger, M.D. (Baylor, 1963).

DIVISION OF PHARMACOLOGY

Associate Professor: Daniel B. Menzel, Ph.D. (California at Berkeley, 1962), Head of Division.

James B. Duke Professor: Frederick Bernheim, Ph.D. (Cambridge, 1928).

Professors: Leon Lack, Ph.D. (Columbia, 1953); Toshio Narahashi, Ph.D. (Univ. of Tokyo, 1960); Saul M. Schanberg, M.D. (Yale, 1964), Ph.D. (Yale, 1961).

Associate Professor: Daniel B. Menzel, Ph.D. (California at Berkeley, 1962); Athos Ottolenghi,

M.D. (Univ. of Pavia, 1946).

Assistant Professors: Howard L. Elford, Ph.D. (Cornell, 1962); Gerald M. Rosen, Ph.D. (Clarkson Coll. of Tech., 1969); Brij Shrivastuv, Ph.D. (Univ. of West Ontario, 1968); Theodore

Slotkin, Ph.D. (Rochester, 1970).

Clinical Professors: David L. Coffin, V.M.D. (Univ. of Penn., 1938); William F. Durham, Ph.D. (Emory, 1948); McChesney Goodall, Jr., M.D. (Med. Coll. of Virginia, 1948), Ph.D. (Karolinska Inst., 1951); George H. Hitchings, Ph.D. (Harvard, 1933); Charles A. Nichol, Ph.D. (Wisconsin, 1949); Robert A. Maxwell, Ph.D. (Princeton, 1954).

Associate Clinical Professors: Gertrude B. Elion, D.Sc. (George Washington, 1969); Herbert Posner, Ph.D. (George Washington, 1958); Madison Spach, M.D. (Duke, 1954); Richard M. Welch,

Ph.D. (Jefferson Med. Coll., 1962).

Assistant Clinical Professor: G. Douglas Blenkarn, M.D. (Univ. of Toronto, 1958); Ronald Yan-li Chuang, Ph.D. (California at Davis. 1970); Everett Ellinwood, M.D. (North Carolina, 1959); Laura Gutman, M.D. (Stanford, 1962); Gerald M. McKenzie, Ph.D. (Dalhousie Univ., 1967); Donald H. Namm, Ph.D. (Rensselaer Polytechnic Inst., New York, 1965); Harold C. Strauss, M.D. (McGill Univ., 1964).

Required Courses

PHS-200—Introduction to the Physiology of Man—lectures and conferences on organ physiology are given after an introductory presentation of the basic principles of cell physiology. Human and medical aspects are stressed particularly in the clinical conferences and the laboratory experience. The neurophysiology section is given in a three week period following the end of the semester. Limited to students whose training requires knowledge of human physiology as it pertains to medicine. Three lectures, two conferences (one of which is clinical), and one laboratory per week. Prerequisites: permission of the course leader. Term: fall. 7 units. Jöbsis and Staff

PHS-250—Pharmacology: Mode of Action of Drugs—studies and discussion of the pharmacological action of drugs in terms of biochemical and physiological processes. Three lectures and one conference per week. Prerequisite: PHS-200 or equivalent. Term: spring. 4 units. Menzel and Staff

PHS-280—Student Seminar in Physiology and Pharmacology—preparation and presentation of seminars to students and faculty on topics of broad interest to physiology and pharmacology. Required of all physiology and pharmacology graduate students. Terms: fall and spring. 2 units. Gunn

Electives

PHS-205(B). Peripheral Circulation in Health and Disease. Topics in physiology and pharmacology of peripheral circulation. Analysis and evaluation of experimental and clinical studies relating to selected diseases of the circulation. Not offered for graduate school credit. Term: 2. Weight: 1. Staff

PHS-207(B). The Heart in Health and Disease. Physiology and Pharmacology at the organ systems level, including cardiac electrophysiology and

mechanics, arrhythmias, ventricular-atrial function, congenital disordered function, coronary blood flow, and cardiovascular control mechanisms. Not offered for graduate school credit. Term: 1. Weight: 1. Johnson, Wallace, Greenfield, Spach, Strauss, McHale, and Anderson

*PHS-208(B). Respiratory System in Health and Disease. Primary emphasis is on the physiology of respiration. Topics covered include pulmonary mechanics, gas exchange, ventilation-perfusion relationships, central and peripheral regulation of ventilation and respiratory responses to exercise, altitude, and hyperbaric environments. Terms: 3 and 4. Weight: 2. Salzano and Kylstra

*PHS-212(B). Membrane Physiology and Osmoregulation. Physiology of aquatic and terrestrial organisms, with emphasis on membrane transport processes and electrophysiology. The course will include lecture and laboratory work on the functions, mechanisms, and comparative aspects of ionic and osmotic regulation in plants and animals. Term: summer. Weight: 9 per 8 weeks. Gutknecht and Staff

*PHS-217(B). Membrane Transport. The physical-chemical basis of ion transport in water and thin lipid films, the solution and application of transport equations, the chemical composition and ultrastructure of biological membranes, the characteristics of non-electrolyte, anion, and cation transport in red blood cells including passive and active carrier transport, the integration of these processes to transport molecules across epithelial tissues. Terms: 1 and 2. Weight: 3 per 16 weeks. Gunn, Hall, Kirk, Lauf, Mandel, Simon, and Tosteson

PHS-219(B). Tutorial in Physiology and Pharmacology. Guided independent study of original literature and/or laboratory experience. Open to all students; required of those electing a preclinical base in the Department of Physiology and Pharmacology. Every term. Weight: 3 per 8 weeks. Gunn and Staff

*PHS-225(B). An Introduction to Neuronal Physiology and Pharmacology. A survey of the properties of excitable membranes in qualitative terms, including impulse generation and conduction in different types of nerves, the effects of pharmacological agents on electrical properties of membranes, the physiological and pharmacological aspects of synaptic and neuromuscular transmission, and biophysics of receptor cells. A practical introduction to electrophysiological techniques is presented in PHS 386 which supplements this course. Advanced quantitative approaches to membrane biophysics including voltage clamp techniques are covered in PHS 416. Terms: 3 and 4. Weight: 3 per 16 weeks. Narahashi, Moore, Wachtel, and Wolbarsht

*PHS-252(B). Cellular and Chemical Pharmacology. Chemical aspects of cell-drug interaction and structure-activity relationships. Stereochemistry. Cholinergic and adrenergic mechanisms. Drug design. Terms: 1 and 2. Weight: 3 per 16 weeks. Ottolenghi and Staff

*PHS-254(B). Mammalian Toxicology. Principles of toxicology as related to man. Emphasis will be placed on the molecular basis for toxicity of chemical and physical agents. Subjects will include the limitations and assumptions of extrapolation to man from animal toxicity, safety of drugs and food additives, toxicity of pesticides and their hazard to man, and the role of scientists in societal decisions on the use of man-made chemical and physical agents. Terms: 1 and 2. Weight: 3 per 16 weeks. Menzel and Staff

- *PHS-256(B). Human Nutrition. Nutrition principles with emphasis on physiology and pharmacology. Topics will include the chemical basis for nutrient requirements, application to practical diets, parenteral nutrition, influence of dietary intake on disease (cardiovascular disease, diabetes, and inborn errors of metabolism), optimal dietary intake, impact of food technology on human nutrition, growth, maturation, lactation, and their requirements and recent advances in micronutrient requirements. Terms: 1 and 2. Weight: 2. Menzel
- *PHS-320(B). Gastrointestinal Physiology. In this course the normal physiology, mechanisms of control, and transport characteristics of the human gastrointestinal tract and its associated glands (salivary, pancreas, liver) are presented in a series of lectures, problems, and demonstrations. The mechanisms of secretion and reabsorption are treated at a cellular level. Problems focus on quantitation of gastrointestinal function. Term: 3. Weight: 2 per 8 weeks. Gunn, Scott, Jones, N. Anderson, and Mandel
- *PHS-321(B). Renal Physiology. The composition and size of body fluid compartments and the regulation of the constituents of the plasma by the kidney is presented by lectures, problems, and demonstrations. Measurements of renal function including renal blood flow, tubular reabsorption and secretion and acid-base regulation are discussed together with the theory of counter current exchange, ion transport in the kidney, and hormonal control of renal function. Term: 4. Weight: 2 per 8 weeks. Yarger, Tosteson, and Clapp
- *PHS-330(B). Pharmacological Basis of Clinical Medicine. This course consists of a detailed analysis of the mechanism of action and rationale for use of pharmacologic agents in disease states. Terms: 1 and 2. Weight: 4 per 16 weeks. Schanberg and Staff
- *PHS-331(B). Laboratory Methods in Pharmacology. Tutorial laboratory training will be given in various fields of pharmacology, including neuropharmacology, cardiovascular pharmacology, biochemical pharmacology, and biophysical pharmacology. Certain special laboratory sessions will be conducted at the Wellcome Research Laboratories, Research Triangle Park. Every term. Weight: 3 per 8 weeks. Narahashi, Maxwell, and Staff
- *PHS-334(B). Pharmacodynamics. This course will introduce the student to the fundamentals of physical processes in biological systems as they pertain to drug action. Specific topics will include pharmacokinetics, drug absorption, distribution, metabolism and excretion, receptor theory, Hansch correlation of molecular structure with biological activity and molecular orbital theory. Terms: 1 and 2. Weight: 2. Rosen and Slotkin
- *PHS-362(B). Current Topics in Cardiac Muscle Physiology. Selected topics in the physiology and pharmacology of adult and embryonic cardiac muscle, including general and comparative morphology and ultrastructure, cardiac electrophysiology and mechanics, and excitation-contraction coupling. Terms: 3 and 4. Weight: 2 per 16 weeks. Johnson and Staff
- *PHS-372(B). Research in Physiology and Pharmacology. Laboratory investigation in various areas of physiology and pharmacology. Every term. Weight: 2-8 per 8 weeks. Gunn and Staff
- *PHS-386(B). Laboratory Methods in Electrophysiology. Laboratory training in the proper use of apparatus for stimulation recording and analysis of electrical activity of nerve, muscle, and other tissues. Designed to supplement

PHS-225. Terms: 3 and 4. Weight: 3 per 16 weeks. Wolbarsht, Anderson, Kootsey, Lieberman, Mandel, Mendell, Moore, Narahashi, and Wachtel

*PHS-393(B). Integrative and Clinical Neurophysiology and Neuropharmacology. Aspects of the physiology and pharmacology of the central nervous system in health and in disease: sensory coding; reflex functions; motor control; effects of drugs on the CNS; physiological aspects of memory. Terms: 3 and 4. Weight: 3 or 4. Somjen and Staff

*PHS-401(B). Metabolic and Developmental Physiology and Pharmacology. Cell division and control of the cell cycle; physiology of subcellular organelles such as nuclei, mitochondria, lysosomes, peroxisomes, and metabolic regulation. Terms 1 and 2. Weight: 3 per 16 weeks. Blum, Padilla, and Staff

*PHS-411(B). Molecular and Cellular Bases of Development and Differentiation. Emphasis is placed on the biochemistry of the cell surface as the basis of cell recognition, control of cell cycle and overall tissue organization. An analysis of protein nucleic acid interactions in chromosome structure and function are considered in light of newer concepts of transcriptional and translational control. Studies also include nuclear cytoplasmic interactions as well as hormone induction of differentiation and development. The course is designed to study the phenomena of development and differentiation and has been organized on a multi-disciplinary level. The course is part of the lecture series of the development and differentiation study program, DDS-201(B). Terms: 1 and 2. Weight: 3-4. McCarty, Counce, Kaufman, and Padilla

*PHS-414(B). Analysis of Physiological Systems. Several physiological systems will be analyzed in detail using a combination of classical mathematical analysis, model-building, and newer analog and digital techniques. Topics to be covered include diffusion processes, steady state and transient kinetics, nerve membrane, and cable equations. Terms: 3 and 4. Weight: 3. Moore, Blum, and Kootsey

*PHS-418(B). Reproductive Biology. An in-depth study of male and female reproductive processes including neuroendocrine, pituitary, and gonadal control mechanisms and the physiology of pregnancy and parturition. Also listed as *ANA-418(B). Terms: 3-4. Weight: 2 per 16 weeks. Anderson, Schomberg, and Tyrey

*PHS-419(B). Topics in Mathematical Physiology. Microcirculatory models, biological wave propagation, and dimensional analysis and scaling. Terms: 3 and 4. Weight: 3 per 16 weeks. Blum, Moore, and Kootsey

*PHS-420(B). Cellular Immunophysiology. The interaction of immunologically active macromolecules such as antibodies or plant agglutinins with membrane surfaces and the resulting effects on membrane function and cell physiology will be the principle topics of this course. Emphasis will be placed on immune reaction meditated permeability changes in red blood cells and certain nucleated mammalian cells as well as on antibody induced alterations or enzyme activities. Terms: 3 and 4. Weight: 2. Lauf

The following seven courses are not offered in 1975-76. They are listed here to inform future scheduling.

*PHS-215(B). Topics in Developmental Physiology and Pharmacology. An analysis of physiological basis of development at the organ level with special reference to vertebrates. Topics will include development of neuronal

connections, cardiogenesis, and hormonal regulation in organogenesis. Terms: 3 and 4. Weight: 2 per 16 weeks. Mendell, Liebermon, ond Podilla

*PHS-216(B). Contractile Processes. Cellular and molecular bases of activity in cilia and skeletal, cardiac and smooth muscle; submicroscopic structure and behavior of muscle; electrical and ionic properties of muscle membranes; the problem of electro-mechanical coupling; mechanics and thermodynamics of muscular contraction; biochemical energies of contraction; modern methods and problems in contractility research. Also listed as *ANA 215(B). Terms: 1 and 2. Weight: 3 per 16 weeks. Jobsis, Johnson, Anderson, and Reedy

*PHS-310(B). Physiological Basis of Medicine. Selected clinical problems will be considered from the physiological point of view. Each topic will be introduced by a clinical presentation, to be followed by a detailed examination of underlying dysfunction. Endocrine, vascular, renal, alimentary, neural, and cellular functions will not be treated separately, but considered as an integrated system. Topics: obstructions of hollow viscera, their mechanisms and physiologic consequences, including the ureter, bile ducts, intestines, and salivary ducts; deviations from calcium homeostasis and their consequences; hypo- and hyper-kalemia and its effects on heart, brain, and cell physiology. See PHS 311(B). Term: 1. Weight: 2 per 8 weeks. Somjen, Gunn, Fellows, Salzano, and Anderson

*PHS-311(B). Physiological Basis of Medicine. A continuation of PHS-310(B) in Regular Term 2. May be taken in sequence or separately from PHS-310(B). Topics: fever and disorders of temperature regulation; adaptation and acclimatization to the environment; bladder function and spinal cord injury; tissue oxygenation and CO₂ removal. Term: 2. Weight: 2 per 8 weeks. Somjen Gunn, Fellows, Solzono, and Anderson

*PHS-383(B). Physiological Instrumentation. Electronic methods of measurement of physiological variables. The operational amplifier is used as the active building block in appropriate feedback circuits containing only



passive elements to make a wide range of linear instruments including analog computers. Digital logic and computing elements are also developed. Terms: 3 and 4. Weight: 3 per 16 weeks. *Moore and Kootsey*

*PHS-416(B). Biophysics of Excitable Membranes. Advanced quantitative approach to the bioelectric membrane phenomena. Topics include the cable properties of axons, voltage clamping theory and techniques, the ionic mechanisms of excitation, mechanisms of synaptic and neuromuscular transmission, receptor mechanisms, models of membranes and neurons, and the pharmacology of excitable membranes. Terms: 1 and 2. Weight: 3 per 16 weeks. Moore, Narahashi, Wachtel, and Wolbarsht

*PHS-417(B). Cellular Endocrinology. Current concepts of the mechanism of action of hormones at the cellular level, including hormone-receptor interactions; secondary messengers; regulation of protein synthesis; growth and differentiation; control of salt and water balance; regulation of substrate storage and mobilization; and modulation of hormone secretion. Terms: 1 and 2. Weight: 2 per 16 weeks. Fellows, Lebovitz, and Handwerger

Psychiatry

Professor: H. Keith H. Brodie, M.D. (Columbia, 1965), Choirmon.

DIVISION OF CHILD PSYCHIATRY

Professor: John A. Fowler, M.D. (Bowman Gray, 1946), Heod of Division.

Visiting Research Professor: Robert Coles, M.D. (Columbia, 1954).

Associate Professors: Harold J. Harris, M.D. (Long Island Med. Coll., 1949); J. David Jones, M.D. (Duke, 1954); Charles R. Keith, M.D. (Harvard, 1961).

Assistant Professors: Marcelino Amaya, M.D. (Univ. Nacional Autonoma de Mexico, 1954); William B. Anderson, M.D. (Minnesota, 1948).

Assistant Clinical Professors: Thomas M. Haizlip, M.D. (North Carolina, 1958); Preston A. Walker, M.D. (Med. Coll. of South Carolina, 1959).

Associate: Robert L. Fisher, M.D. (Colorado, 1967).

Clinical Associate: Lucy T. Davis, Ed.D. (Columbia, 1955).

Instructor: Alice F. Long, M.A. (Chicago, 1953).

DIVISION OF ELECTROENCEPHALOGRAPHY AND CLINICAL NEURO-PHYSIOLOGY

Professor: William P. Wilson, M.D. (Duke, 1947), Heod of Division. Professor: Everett H. Ellinwood, Jr., M.D. (North Carolina, 1959). Research Associate: Jeffrey Stripling, Ph.D. (Colorado, 1974).

DIVISION OF HIGHLAND HOSPITAL

Associate Professor: Charles W. Neville, Jr., M.D. (Vanderbilt, 1956), Heod of Division.

Associate Professor: Duilio Giannitrapani, Ph.D. (Clark, 1953).

Assistant Professors: Marie Baldwin, M.D. (Med. Coll. of South Carolina, 1929); Jack W. Bonner, M.D. (Southwestern, 1965); Hal G. Gillespie, M.D. (Med. Coll. of South Carolina, 1964); Thomas R. Faschingbauer, Ph.D. (North Carolina, 1973); Duane Green, Ph.D. (Univ. of Southern California, 1972); Leo Potts, M.D. (Adelaide, Australia, 1955).

Associates: Joyce Bracewell, M.S.W. (Florida State, 1964); Harold G. Gollberg, M.D. (Texas, 1966); James C. Green, M.D. (Illinois, 1965); Anne E. Sagberg, M.D. (Oslo, 1946); Thomas A.

Smith, M.D. (Tennessee, 1955).

Clinical Associate: Helen E. Courvoisie, M.D. (Med. Univ. of South Carolina, 1970).

Instructors: Thomas J. DeMartini, M.S.W. (Tulane, 1971); Terrold W. Fox, M.S.W. (Florida State, 1965); Joan S. Grimes, M.S.W. (North Carolina, 1970); George B. Ingle, Jr., M.S.W. (Tulane, 1971); Helen G. Johnson, M.S.W. (Pittsburgh, 1946); Shirley C. Singleton, M.S.W. (Michigan, 1958); Olin D. Wilson, M.S.W. (Florida State, 1968).

Clinical Instructors: Cecil T. Durham, M.D. (Med. Univ. of South Carolina, 1966); John W.

Ledbetter, M.D. (Bowman Gray, 1953).

DIVISION OF INPATIENT SERVICES

Professor: Frederick R. Hine, M.D. (Yale, 1949), Heod of Division.

Professors: Bernard Bressler, M.D. (Washington Univ., 1942); John M. Rhoades, M.D. (Temple, 1943).

Associate Professors: Johnnie L. Gallemore, Jr., M.D. (Emory, 1964); George A. Silver, M.D. (Duke, 1938).

Assistant Professor: Z. Daniel Pauk, M.D. (Iowa, 1956).

Assistant Clinical Professors: Martin G. Groder, M.D. (Columbia, 1964); Pedro J. Irigaray, M.D. (Univ. of Mexico, 1955).

Associate: Steven Potkin (Washington Univ., 1971).

Geropsychiatry

J. P. Gibbons Professor: Ewald W. Busse, M.D. (Washington Univ., 1942), Director of Medicol and Allied Health Education.

Professors: Eric A. Pfeiffer, M.D. (Washington Univ., 1960); Adriaan Verwoerdt, M.D. (Med. School of Amsterdam, 1952).

Associate Professors: Daniel T. Gianturco, M.D. (Buffalo, 1960); Hsioh-shan Wang, M.D. (National Taiwan Univ., 1953); Alan D. Whanger, M.D. (Duke, 1956).

Assistant Professors: Daniel T. Peak, M.D. (Wisconsin, 1959); Dietolf Ramm, Ph.D. (Duke, 1969).

DIVISION OF MEDICAL PSYCHOLOGY

Associate Professor: W. Doyle Gentry, Ph.D. (Florida State, 1969), Head of Division.

Professors: Irving A. Alexander, Ph.D. (Princeton, 1949); Lloyd J. Borstelmann, Ph.D. (California at Berkeley, 1950); Robert C. Carson, Ph.D. (Northwestern, 1957); Edward Clifford, Ph.D. (Minnesota, 1954); Herbert F. Crovitz, Ph.D. (Duke, 1960); Martin Lakin, Ph.D. (Chicago, 1955); Walter D. Obrist, Ph.D. (Northwestern, 1950).

Associate Professor: Ila H. Gehman, Ed.D. (Pennsylvania, 1947).

Assistant Professors: Hugh V. Angle, Ph.D. (Texas Christian, 1969); Richard G. Coleman, Ph.D. (North Carolina, 1970); Elaine K. Crovitz, Ph.D. (Duke, 1964); C. Drew Edwards, Ph.D. (Florida State, 1972); Mary M. Huse, Ph.D. (Duke, 1959); M. Marlyne Kilbey, Ph.D. (Houston, 1969); Irwin Kremen, Ph.D. (Harvard, 1961); Patrick Logue, Ph.D. (North Dakota, 1965); Gail R. Marsh, Ph.D. (Iowa, 1968); Gerard J. Musante, Ph.D. (Tennessee, 1971); Robert D. Nebes, Ph.D. (California Inst. of Tech., 1971); Susan S. Schiffman, Ph.D. (Duke, 1970); W. Derek Shows, Ph.D. (Duke, 1967); Russell F. Tomlinson, Ph.D. (Florida, 1957).

Associates: Charles D. Gasswint, Ph.D. (Oklahoma, 1968); Paul M. Kirwin, Ph.D. (Texas, 1968); John Lavigne, Ph.D. (Univ. of Texas, 1974); Richard A. Lucas, Ph.D. (North Carolina, 1972); Linda C. Wyrick, Ph.D. (Arizona, 1971); Ilene Siegler, Ph.D. (Duke, 1974).

Instructors: Leonard Leighton, Ph.D. (Duke, 1974); Judith Lippmann, M.A. (Kentucky, 1971). Research Associates: Eleanor Bentz, M.S.P.H., (North Carolina, 1973); Barbara Uzzell, Ph.D. (Duke, 1974).

DIVISION OF MEDICAL SOCIOLOGY

Professor: George L. Maddox, Ph.D. (Michigan, 1956), Head of Division; Director, Center for the Study of Aging and Humon Development.

Professors: Kurt W. Back, Ph.D. (Massachusetts Inst. of Tech., 1949); John C. McKinney, Ph.D. (Michigan State, 1953); Erdman B. Palmore, Ph.D. (Columbia, 1959).

Associate Professor: Jacquelyne J. Jackson, Ph.D. (Ohio State, 1960).

Research Associates: Gerda G. Fillenbaum, Ph.D. (London, 1966); Robin Karasik, M.A. (Minnesota, 1974); Gail S. Bradley, M.A. (Northwestern, 1942).

DIVISION OF OUTPATIENT SERVICES

Associate Professor: Charles E. Llewellyn, Jr., M.D. (Med. Coll. of Virginia, 1946), Heod of Division.

Assistant Professors: James H. Carter, M.D. (Howard, 1966); David M. Hawkins, M.D. (Duke, 1966); Kenneth Rockwell, M.D. (Duke, 1961).

Associate: Soong H. Lee, M.D. (Seoul National Univ., 1963); William N. Grosch, M.D. (Albany Med. Coll., 1964).

Instructor: James T. Moore, M.D. (Missouri, 1971).

DIVISION OF PSYCHOSOMATIC MEDICINE

Associate Professor: Marianne S. Breslin, M.D. (Medical Academy, Duesseldorf, Germany, 1946), Heod of Division.

Professor: Joseph B. Parker, Jr., M.D. (Tennessee, 1941). Associate Professor: C. William Erwin, M.D. (Texas, 1960). Assistant Professor: Redford B. Williams, Jr., M.D. (Yale, 1967). Research Associate: John W. Hartwell, Ph.D. (Duke, 1971).

DIVISION OF PSYCHIATRIC SOCIAL WORK

Assistant Professor: Martha L. Wertz, M.S.W. (Tulane, 1952), Heod of Division.

Associate Professor: Maurine B. LaBarre, M.S.W. (Bryn Mawr, 1934).

Assistant Professors: S. Katheryn Barclay, M.S.W. (Tulane, 1946); Dorothy K. Heyman, M.S.W.

(Pennsylvania, 1940); Grace H. Polansky, M.S.W. (Western Reserve, 1949).

Associates: Judith S. Altholz, M.S.W. (Chicago, 1969); Mary A. Black, M.S.W. (North Carolina, 1970); Hallie M. Coppedge, M.S.W. (North Carolina, 1948); Maxine R. Flowers, M.S.W. (Columbia, 1964); Jean F. Gregory, M.S.W. (Connecticut, 1967); Lily P. Wang, M.S.W. (North Carolina, 1959).

Instructors: Katherine Buckner, M.S.W. (North Carolina, 1964); Patricia D. Hall, M.S.W. (North Carolina, 1967); Laurie Ivler, M.S.W. (Smith, 1974); Benjamin Maney, M.S.W. (Michigan, 1974); Jane C. Moorman, M.S.W. (Tulane, 1971); Elizabeth Moore, M.A. (Hawaii, 1969); Mayda A. Podell, M.S.W. (New York Univ., 1972); Belita Walker, M.S.W. (North Carolina, 1974); Carolyn Welborn, M.S.W. (North Carolina, 1974).

Research Associate: Carol Van Steenberg, M.S.W. (Bryn Mawr, 1974).

DIVISION OF VETERANS ADMINISTRATION

Professor: Robert L. Green, Jr., M.D. (Hahnemann, 1946), Heod of Division.

Professor: William W. K. Zung, M.D. (Texas, 1961).

Assistant Professors: Jesse O. Cavenar, M.D. (Arkansas, 1963); James L. Nash, M.D. (Duke, 1966); C. Bryan Norton, M.D. (Duke, 1966); John L. Sullivan, M.D. (Johns Hopkins, 1969).

Associates: Elliott B. Hammett, M.D. (Duke, 1966); Allan A. Maltbie, M.D. (Emory, 1969); Michael R. Volow, M.D. (Seton Hall, 1964).

Required Courses

PSC-200—required for all medical students during the first year—consists of 60 hours devoted to human behavior. A lecture series introduces the student to the concepts, techniques, and data of the various sciences most relevant to an understanding and multifaceted approach to human behavior. Lecturers from the fields of behavioral neurobiology, psychology, psychiatry, and sociology discuss behavior from the point of view of heredity and constitution, central and autonomic nervous systems, inner emotional conflicts and interpersonal relationships, learning, cognition and perception, and relationships between the individual and his family, social institutions, and his culture and subculture. Functional and developmental points of view are presented and stages in the development of the individual personality are traced. Wherever possible relationships between the various approaches to human behavior are emphasized. Concurrently, a series of small group meetings provide opportunities for additional assimilation of lecture material and its application to specific examples of behavior through interviews of patients and group discussions. The small groups also provide opportunities to introduce effective techniques of human interaction and observation of the primary data of human behavior as well as methods of recording and interpreting these observations. In both the didactic and small group laboratory portions of the course, the relevance of human behavior to the biological and psychosocial aspects of medicine are stressed.

PSC-201—required during the second year—is an eight-week clerkship in clinical psychiatry. The student assumes limited responsibility, under super-

vision, for diagnosis and treatment of patients on the psychiatric wards, psychiatric outpatient clinic, and psychosomatic consultation services on nonpsychiatric wards of the hospitals. Supervision is directed toward the application of concepts of diagnosis, psychopathological formulation, and therapy. These concepts are taken from descriptive, biological, psychoanalytic, and psychosocial contributions to current psychiatric thought. Supervision is also provided to develop interpersonal techniques of sensitive observation and therapeutic use of self. Emphasis is placed upon concepts and techniques applicable to all patients as well as psychiatric patients. To this end student interviews with patients on the nonpsychiatric services are reviewed with a psychiatric supervisor. Didactic instruction includes seminars on symptomatic, characterological, and psychophysiological neurotic conditions, the major psychoses, psychiatric problems of childhood, adolescence and late life, drug and somatic therapies, the psychotherapies, and introductory electroencephalography. In addition to rounds and case conferences, students are encouraged to observe psychotherapy and participate in supervised psychological treatment whenever appropriate situations can be provided.

Electives

PSC-202(B)†. Philosophy of Science and Behavioral Sciences. Survey of current theories of knowledge, particularly as they relate to the special complex problems of empirical meaning, objectivity, measurement, and verification in studies of human behavior. Consideration is also given to the mind-body problem. Term: 2. Weight: 1. *Hine*

PSC-213(B)†. Human Development I: Birth-Adolescence. A survey of psychological development from birth to adolescence in terms of sequential emergence of major behavioral systems. Terms: 1 or 3. Weight: 2. Borstelmann and Clifford

PSC-214(B)†. Human Development II: The Later Years of Life. A review of selected biological, psychological, and social aspects of development at the end of the life cycle. Term: 2. Weight: 2. *Maddox and Busse*

PSC-215(B)†. Comparative Personality Theory. An examination of models of human functioning from Freud to the present. Topics will include examples from psychoanalytic, interpersonal, field theoretical, and behavioristic approaches. Term: 3. Weight: 1. Crovitz

PSC-216(B)†. Intelligence and Cognition. Description of role of intelligence and cognition in behavior. Theories of intellectual functioning. Introduction to measurement of abilities. Effects of genetics, experience, age, and illness upon intelligence. Term: 4. Weight: 2. Psychiatry Staff

PSC-223(B)†. Biological Correlates of Behavior. A survey of current concepts of genetic, anatomical, physiological, neurochemical, and pharmacological factors affecting perception, cognition, feeling states, states of awareness, and memory is presented. The course includes an analysis of autonomic nervous system conditioning and an introduction of psychophysiological methods. The course also involves laboratory demonstrations, experiments, and discussions of principles presented in lectures. Also listed as PHS-223(B). Terms: 1 and 2. Weight: 4. Staff

*PSC-238(B)†. The Electroencephalogram and Psychological Function. A survey of the literature on brain wave correlates of intelligence, personality,

†For further information, consult the Associate Director for Undergraduate Medical Education.

behavior disorders, epilepsy, sleep, sensory stimulation, conditioning, and learning. Lectures and laboratory demonstrations are included. (Also listed as Psychology 238 in the Graduate School Bulletin.) Terms: 3 and 4. Weight: 3. Obrist

PSC-293(B)†. Theory of Treatment Approaches of Behavioral Psychology. This course will cover learning theory behind behavioral treatment of maladaptive behaviors, as well as those behaviors associated with chronic medical problems. Obesity, as an example of a chronic medical care problem, will be used as a model for elaboration of theory; depression, a maladaptive behavior associated with obesity, will also be examined. The course is intended for those interested in psychiatry and/or chronic disease as seen in family practice. Term: 3. Weight: 2. Musante

PSC-299(B)†. **Preceptorship in Behavioral Science.** Opportunity for the student to work closely with a member of the faculty in an area of mutual interest with emphasis upon research. Every term. Weight: 1-8. Clifford, Thompson, and Staff

PSC-303(B)†. Developmental Disabilities. Basic survey of the psychology of child development focusing upon the multiple problems posed by mental retardation and other developmental disabilities during early childhood. Implications for medical practice and education. Terms: 1 and 2. Weight: 2. Edwards

PSC-305(B)†. Social and Cultural Aspects of Illness. Seminar on medical-social roles in community and hospital. Topics include physician-patient relationship; epidemiology of illness and health services in terms of ecology, social stratification, race, life cycle. Students wishing further work in one particular topic, such as Negro sub-culture or gerontology, should take PSY-299(B) specifying particular interest. May be taken in conjunction with PSC-230(C), PSC-215(C). Term: 3. Weight: 3. Palmore, Jackson, and Maddox

PSC-227(C). Behavioral Aspects of Pediatric Illness. The purpose of this course is to introduce the student to the emotional aspects of sick children. Experience will include the impact on the family as well as the psychic and somatic adjustments of the child. (See also PED-227(C).) Terms: 1, 2 3, or 4, Summer term I. Weight: 3-6. Jones, Borstelmann, Yancy, and Ms. Ivler

PSC-234(C). Clinical and Experimental Psychopharmacology. Experience in one or more areas of psychopharmacology including clinical use of drugs, human experimental psychopharmacology, and animal neuropharmacology. Lectures covering mechanisms of action and clinical use of psychoactive drugs. Attendance at weekly behavioral neuropharmacology seminars encouraged. Terms: 2 or 3. Weight: 3. Ellinwood, Wilson, Sullivan, Zung, and Kilbey

PSC-240(C). Inpatient Psychiatry: Environmental and Somatic Therapy. Intensive clinical course—diagnosis, treatment, and management methods. Patient care responsibilities, including management of ward milieu and experience with somatic, individual, and group psychotherapy. Diagnosis, psychodynamics, and treatment emphasized. Selected patient conferences and didactic lectures. Student is given more clinical responsibility than in sophomore year. If desired, may arrange for special reading tutorial in related topics (e.g. schizophrenia). Every term. Weight: 8-6-3. Green and F. Hine

PSC-243(C). Principles and Practice of Outpatient Psychiatry. Training and experience in recognizing and treating emotional disorders in outpatients.

†For further information, consult the Associate Director for Undergraduate Medical Education.

Supervised experience with patients having emotional problems commonly seen in medical practice. Training to include theory and techniques of brief psychotherapy, crisis intervention, supportive psychotherapy, and utilization of community resources, both at Duke Hospital and neighboring agencies. Every term. Weight: 3-8. Llewellyn, Hawkins, Rockwell, ond Grosch

- PSC-245(C). Psychosomatic Medicine and Liaison Psychiatry. This is a full-time rotation within the division of Psychosomatic Medicine. A variety of opportunities is available both for consultation within the hospital to patients from other services than psychiatry and an opportunity for research, both basic and applied in the area of psychosomatic medicine and psychophysiological research. Patient care conferences, clinical rounds, and didactic seminars are held with specialized groups in the hospital. The student participates in diagnostic work-up of psychosomatic patients and goal limited treatment of such conditions. Terms: 1, 2, 3, or 4. Weight: 8. Breslin, Porker, Willioms, Sullivon, Gentry, Volow, and Moltbie
- **PSC-251(C).** Community Psychiatry and Mental Health. The student will be assigned to a faculty member active in Community Mental Health consistent with the student's special interests such as, Agency Consultation, Sociological Studies, Community Health Center Operations, Student Mental Health, Suicide and Crisis Intervention, etc.; and his faculty instructor will work out a lab project and special areas of study. Terms: 1, 2, 3, or 4. Weight: 4-8. Llewellyn, Maddox, Rockwell, Carter, Groder, Anderson, Harris, and Keith
- **PSC-252(C).** Christianity, Medicine, and Psychiatry. A clinical training program in which the relationships of Christian insights to the practice of medicine and especially psychological medicine are presented. The course includes attendance at regularly scheduled seminars, individual supervision in the diagnosis, management, and therapy of patients, supervised reading and a special seminar related to religious psychopathology as well as the mental health benefits of Christian beliefs. Terms: 1, 2, 3 or 4. Weight: 4 or 8. Wilson
- **PSC-253(C). Group Psychotherapy.** Observation of an ongoing outpatient group psychotherapy program. Every term. Weight: 1. Norton, Howkins, and Staff
- **PSC-255(C).** Marriage Counseling in Medical Practice. The principles and practices of marriage counseling will be taught. Required reading assignments will be made. The nonmedical resources of marriage counseling will also be presented. Sexual problems commonly occuring in marriage will be discussed. Term: 2. Weight: 1. Llewellyn, Breslin, and Pfeiffer
- **PSC-259(C).** Clinical Neurophysiology (EEG). Didactic and tutorial training in clinical neurophysiology as it relates to diseases of the central nervous system. The technical and interpretative aspects of electroencephalography are taught. Every term. Weight: 3. Wilson
- **PSC-261(C).** Practice of Psychological Assessment Techniques. Demonstrations and practice in the administration and in interpretation of psychological assessment techniques with emphasis on the potential utility of these techniques to physicians. Terms: 1, 2, 3, or 4. Weight: 1. Huse ond Staff
- **PSC-267(C).** Clinical Child Psychiatry. Survey of child and adolescent psychopathology including diagnostic treatment and consultative approaches. Conferences and seminars augment closely supervised clinical experiences. Terms: 1, 2, 3, or 4. Weight: 3-6. W. Anderson

PSC-333(C). Psychiatry Theory and Practice and Therapeutic Community in a Private Psychiatric Hospital. Principles and practice of psychiatric diagnosis and treatment. Instruction in psychiatric interviewing techniques. Psychological testing theory and administration. Theory of and supervised experience in individual psychotherapy, group psychotherapy, occupational therapy, recreational therapy, and total management of the patient. Active involvement in hospital's therapeutic community. Board and lodging for single and married students furnished. Every term. Weight: 9. Neville, Bonner, Gillespie, and Green

PSC-335(C). Research Preceptorship in Clinical Psychiatry. This course allows the student to work on a research project in clinical psychiatry with selected members of the psychiatric staff. Terms: 1, 2, 3, or 4. Weight: 3-8. Clinical Staff by arrangement

PSC-337(C). Geriatric Psychiatry. The medical and clinical aspects of geriatric psychiatry with emphasis on diagnosis and management of geriatric patients in a variety of treatment facilities. Course includes attendance at scheduled conferences and supervised review of geriatric literature. Course may be taken in conjunction with PSC-214(B), Personality Development II—Adolescence and Old Age. Terms: 1, 2, 3, or 4. Weight: 3-8. Peak, Verwoerdt, Wang, Palmore, and Staff

PSC-339(C). Preceptorships in Clinical Psychiatry. An advanced training program in the preceptorship style for the recognition, diagnosis, prognosis, and treatment of psychiatric disorders. Experience will be mainly with inpatients and patients seen in consultation from other services but may include outpatients as well. Terms: 1, 2, 3, or 4. Weight: 3-8. Clinical Staff by arrangement

PSC-343(C). Theoretical and Practical Aspects of Alcohol and Drug Abuse. The personality and sociocultural aspects of the drug and alcohol abuser are considered in depth. A student is taught the neuropharmacology of drug and alcohol abuse and is instructed in laboratory and research techniques with this population. He is offered a chance to engage in evaluation and treatment of the abuses. Attendance at weekly behavioral neuropharmacology seminars encouraged. Terms: 3 or 4. Weight: 4-8. Ellinwood, Carter, Maddox, Rockwell, Angle, and Potkin

PSC-351(C). Clinical Use of Computers in Psychiatry. This course will assess the current state of the art of computerized mental health information systems; detail the planning and execution of these systems, and assess new developments in theory and research arising from the application of computer technology to mental health concerns. Terms: 2 or 3. Weight: 1. Gianturco, Ramm, and Cleveland

PSC-353(C). Prison Psychiatry—Adult and Adolescent. Part-time or full-time experience in a prison setting is offered. Diagnosis and treatment of adult and adolescent offenders with a variety of medical illnesses and behavioral disturbances are recognized. Elements of forensic psychiatry are stressed where appropriate. Supervision is provided by Duke and UNC consultants and the Central Prison Hospital and Mental Health Staff. Opportunities for participation in a wide range of original and continuing research are available. Every term. Weight: 2-9. Gallemore, Smith, Owen, and Kaye

PSC-355(C). Clinical Experience in Psychotherapy. A student who undertakes the psychotherapy of a psychiatric patient may obtain credit for this

experience provided he can obtain the services of a psychiatric faculty member to serve as supervisor for this experience. The arrangement should be confirmed with the fourth year clinical D.P.A. Every term. Weight: 1-3. Psychiatric Staff

PSC-357(C). Behavioral Therapy Seminar. This experience will consist of a review of pertinent literature in the areas of behavior therapy and behavior modification, and supervised exposure to a behavioral "token economy" program for patients in a state hospital. Term: 4. Weight: 1-2. Gentry

PSC-365(C). Individual Psychotherapy Based on Psychoanalytic Theory. Seminar concerning the theory and practice of individual psychotherapy involving reading, lecture, and discussion. If possible, ongoing discussion of students' cases will be utilized. Students will be encouraged to become involved in therapeutic work with an individual case. Term: 1. Weight: 2-3. Pauk

Radiology

Professor: Richard G. Lester, M.D. (Columbia, 1948), Chairmon.

DIVISION OF DIAGNOSTIC RADIOLOGY

Associate Professor: Arvin E. Robinson, M.D. (Med. Coll. of Virginia, 1964), Director.

Professors: Richard G. Lester, M.D. (Columbia, 1948); George J. Baylin, M.D. (Duke, 1937); William F. Barry, Jr., M.D. (Pennsylvania, 1946); John A. Goree, M.D. (Duke, 1955); Herman Grossman, M.D. (Columbia, 1953); Reed P. Rice, M.D. (Indiana, 1955); Irwin Johnsrude, M.D. (Univ. of Manitoba, 1956).

Associate Professors: James T.T. Chen, M.D. (Natl. Defense Med. Center, 1950); John A. Gehweiler, M.D. (Duke, 1956); Donald C. Jackson, M.D. (Sheffield, 1954); John P. Jimenez, M.D. (Med. Coll. of Virginia, 1955); Herman Libshitz, M.D. (Hahnemann, 1963); Robert McLelland, M.D. (Cincinnati, 1948).

Assistant Professors: Peter J. Dempsey, M.D. (St. Louis, 1966); Arthur F. Kriner, M.D. (Hahnemann, 1969); Robert Older, M.D. (Duke, 1968); Michael Oliphant, M.D. (Cornell, 1967); Raymond Osborne, M.D. (McGill, 1966); Thomas T. Thompson, M.D. (Med. Coll. of Virginia, 1964).

Associates: Saleh A. Fetouh, M.D., Ph.D. (North Carolina, 1972); Michael Johnson, M.D. (Colorado, 1972); Chen Fah Lian, M.D. (Univ. of Cambridge, 1964); William Thompson, M.D. (Pennsylvania, 1969).

DIVISION OF RADIATION THERAPY

Assistant Professor: Norman Abramson, M.D. (Temple, 1962), Director.

Professor: Patrick J. Cavanaugh, M.D. (St. Louis, 1951).

Associate Professor: Boyd T. Worde, M.D. (Tennessee, 1947).

Assistant Professors: Roger W. Byhardt, M.D. (Wisconsin, 1968); Moody D. Wharam, M.D. (Virginia, 1969).

DIVISION OF NUCLEAR MEDICINE

Professor: Jack K. Goodrich, M.D. (Tennessee, 1953), Director.

Associate Professors: Jack D. Davidson, M.D. (Columbia, 1943); C. Craig Harris, M.S. (Tennessee, 1951); Robert H. Wilkinson, Jr., M.D. (Washington Univ., 1958); Joseph B. Workman, M.D. (Maryland, 1946).

Assistant Professor: William H. Briner, B.S. (Temple, 1954).

Associates: Frederick P. Bruno, M.S. (Florida, 1965); Elizabeth Blackburn, R.T., M.Ed. (Madison, 1954).

DIVISION OF RADIATION PHYSICS

Professor: Fearghus O'Foghludha, Ph.D. (Natl. Univ. of Ireland, 1961), Director. Assistant Professor: Alice McCrea, M.S. (Chicago, 1956).

DIVISION OF RADIOBIOLOGY

Professor: Aaron P. Sanders, Ph.D. (North Carolina, 1964), Director. Associate Professor: William D. Currie, Ph.D. (North Carolina, 1964).

Assistant Professors: Peter J. Kusel, Ph.D. (St. Louis, 1970); Raymond U. Ph.D. (Kyoto, Japan, 1970).

RADIATION SAFETY

Associate: Conrad Knight, B.S. (Norwich, 1953).

Required Course

RAD-200—the basic course in radiology for all medical students—is combined with physical diagnosis and laboratory diagnosis into IND-200. The course is a concentrated lecture series with correlating demonstration laboratories designed to provide a broad introductory exposure to the entire field of radiology including diagnostic radiology, therapeutic radiology, and nuclear medicine.

Electives

RAD-227(B). General Radiobiology. Basic fundamentals essential to an understanding of biological effects of ionizing radiation. Major sections include radiation physics, radiation dosimetry, target theory, and activated water theory in radiation damage, oxygen effect, radio-biochemistry, subcellular effects, tissue radiosensitivity, general radiation syndrome. Term: 3. Weight: 2. Sanders, Currie, *U*, and Kusel

RAD-207(C). Pediatric Radiology. A specialized program of instruction and participation in the wide variety of radiographic examinations in the pediatric age group. Special correlation of these examinations to the problems of specific diagnosis and patient care will be made. Student is to meet with D.P.A. prior to registering for any of the clinical electives in radiology. Every term. Weight: 4-8. Grossman, Oliphant, and Staff

RAD-209(C). Clerkship in Neuroradiology. A specialized program of detailed instruction in neuroradiology. The program includes participation in the performance and interpretation of a variety of examinations including carotid arteriography, retrograde brachial arteriography, pneumoencephalography, myelography, and others. Student is to meet with D.P.A. prior to registering for any of the clinical electives in radiology. Every term. Weight: 4. Goree, Jimenez, Dempsey, and Staff

RAD-215(C). Clinical Radiation Therapy. Approximately two thirds of new cancer patients seen at the medical center are concentrated within the Division of Radiation Therapy. The course mainly provides an opportunity to observe a wide spectrum of clinical behavior in new patients, follow-up clinic, and in cases undergoing treatment. The course is aimed particularly at students leaning toward gynecology, otolaryngology as well as general surgery. Student is to meet with D.P.A. prior to registering for any of the clinical electives in radiology. Every term. Weight: 4-8. Abramson, Cavanaugh, Byhardt, Wharam, Worde, and McCrae

RAD-229(C). Basic Radiology Clerkship. The radiology clerkship is designed to provide maximum flexibility for the student desiring exposure to the general field of radiology or to certain other subdivisions. The student may elect to study in several of the sections for a broad exposure or may

choose to concentrate in a single area of particular interest. The sections participating in the clerkship include: General Diagnostic Radiology, GI Radiology, GU Radiology, Nuclear Medicine, Diagnostic Ultrasound, ENT Radiology, Orthopaedic Radiology, and Clinical Radiation Therapy. The program includes observation and participation in the performance and interpretation of the various routine and special procedures with correlation of these examinations to the problems of specific diagnosis and patient care. There is flexibility as to full or part-time course participation. All applicants for this course are to meet with the Departmental Professional Adviser prior to registering and work out programs that best meet their interests and schedules. The student is expected to attend departmental conferences and student seminars. Every term. Weight: 4-8. Lester, Robinson, Kriner, and Staff

Surgery

James B. Duke Professor: David C. Sabiston, Jr., M.D. (Johns Hopkins, 1947), Chairmon.

DIVISION OF GENERAL AND THORACIC SURGERY

Professors: William W. Shingleton, M.D. (Bowman Gray, 1943), Chief of Division of General

Surgery; Will C. Sealy, M.D. (Emory, 1936), Chief of Division of Thorocic Surgery.

Professors: D. Bernard Amos, M.D. (Guys Hospital, London, 1963), Experimental Surgery; William G. Anlyan, M.D (Yale, 1949); Eugene D. Day, Ph.D. (Delaware, 1952), Experimental Surgery; Keith S. Grimson, M.D. (Rush, 1934); Norman Kirshner, Ph.D. (Pennsylvania, 1952), Experimental Surgery; William P. J. Peete, M.D. (Harvard, 1947); Raymond W. Postlethwait, M.D. (Duke, 1937); Donald Silver, M.D. (Duke, 1955); Delford L. Stickel, M.D. (Duke, 1953); W. Glenn Young, Jr., M.D. (Duke, 1948).

Associate Professors: Dani P. Bolognesi, Ph.D. (Duke, 1964), Experimental Surgery; Per-Otto F. Hagen, F.H.W.C. (Watt Univ., Edinburgh, Scotland, 1961), Experimental Surgery; R. Scott Jones, M.D., (Texas, 1961); H. Newland Oldham, Jr., M.D. (Baylor, 1961); Norman F. Ross, D.D.S. (Temple, 1937), Dentistry; Hilliard F. Seigler, M.D. (North Carolina, 1960); Wirt W. Smith, M.D. (Texas, 1951), Experimental Surgery; Samuel A. Wells, Jr., M.D. (Emory, 1961).

Associate Clinical Professors: James E. Davis, M.D. (Pennsylvania, 1943); William F. Hollister,

M.D. (Duke, 1939); Timothy Takaro, M.D. (New York Univ., 1943).

Assistant Professors: Robert W. Anderson, M.D. (Northwestern, 1964); Darell D. Bigner, M.D. (Duke, 1965), Experimental Surgery; Walter Duran, Ph.D. (Catholic Univ. of Chile, 1965); James C. A. Fuchs, M.D. (Johns Hopkins, 1964); Jonathan P. Leis, Ph.D. (Cornell, 1970), Experimental Surgery; Frances F. Ward, Ph.D. (Brown, 1965), Experimental Surgery; Andrew S. Wechsler, M.D.

(State Univ. of New York, 1964); Walter G. Wolfe, M.D. (Temple, 1963).

Assistant Clinical Professors: Eugene F. Bartlett, M.D. (Washington, 1958); Rollins S. Burhans, Jr., M.D. (Louisville, 1963); Gordon M. Carver, M.D. (Duke, 1948); John M. Cheek, Jr., M.D. (Bowman Gray, 1945); John T. Daniels, M.D. (Howard, 1964); Alphonse J. Langlois, Ph.D. (Duke, 1966); Walter J. Loehr, M.D. (Cornell, 1963); F. Maxton Mauney, Jr., M.D. (Duke, 1959); W. B. McCutcheon, Jr., M.D. (Virginia, 1952); F. M. Simmons Patterson, M.D. (Pennsylvania, 1939); H. Max Schiebel, M.D. (Johns Hopkins, 1933); Stewart M. Scott, M.D. (Baylor, 1951); Gulshan K. Sethi, M.D. (All India, 1963); E. Wilson Staub, M.D. (Northwestern, 1957); Douglas H. Stone, M.D. (Harvard, 1937); Charles D. Watts, M.D. (Howard, 1943); James S. Wilson, M.D. (Duke, 1937).

Associates: Robert W. Green, Ph.D. (Hawaii, 1969); Ryotaro Ishizaki, Ph.D. (Univ. of Tokyo,

1962).

Clinical Associates: Leslie R. Abel, D.D.S. (Tennessee, 1961), Dentistry; Thomas J. Enright, M.D. (Buffalo, 1948); Gordon D. Gregory, D.D.S. (Tennessee, 1968), Dentistry; Theron C. Johnson, D.D.S. (Kansas, 1960), Dentistry; Amire A. Neshat, M.D. (Isfahan Univ., 1960).

Clinical Instructors: Albert H. Bridgman, M.D.; Hugo L. Deaton, M.D.

Research Associates: Lee Alice Goscin, Ph.D.; Gudrun Huper, M.A.; Anthony V. Seaber; Marguerite Alberta Thiele, A.B.

DIVISION OF NEUROSURGERY

Professor: Guy L. Odom, M.D. (Tulane, 1933), Chief. Professor: Blaine S. Nashold, M.D. (Louisville, 1949).

Associate Professor: M. Stephen Mahaley, M.D., Ph.D. (Duke, 1959).

Assistant Professor: Wesley A. Cook, Jr., M.D. (Oregon, 1963).

Assistant Clinical Professor: Walter S. Lockhart, M.D. (Bowman Gray, 1944); Robert Price, M.D. (North Carolina, 1964).

Associates: Richard S. Kramer, M.D. (Duke, 1962); Duane A. Dreyer, Ph.D. (Pittsburgh, 1971). Research Associates: Olin M. Pitts, Jr., Ph.D. (Med. Coll. of South Carolina, 1973); Yvonne Schurch, Ph.D.

DIVISION OF ORAL SURGERY

Professor: Nicholas G. Georgiade, D.D.S., M.D. (Duke, 1949), Chief.

Clinical Instructors: Claude J. Hearn, D.D.S.; Glenn A. Lazenby, D.D.S.; Jere E. Roe, D.D.S.

DIVISION OF ORTHOPAEDIC SURGERY

Professor: J. Leonard Goldner, M.D. (Nebraska, 1943), Chief.

Professors: Frank H. Bassett, III, M.D. (Louisville, 1957); Frank W. Clippinger, M.D. (Washington Univ., 1952); Donald E. McCollum, M.D. (Bowman Gray, 1953).

Associate Professor: James R. Urbaniak, M.D. (Duke, 1962).

Associate Clinical Professors: Everett I. Bugg, Jr., M.D. (Johns Hopkins, 1937); Ralph W. Coonrad, M.D. (Duke, 1947); John Glasson, M.D. (Cornell, 1943); Frank H. Stelling, III, M.D. (Georgia, 1938).

Assistant Professors: Evan Evans, Ph.D. (California at San Diego, 1970); John M. Harrelson,

M.D. (Duke, 1964).

Assistant Clinical Professors: J. George Jonas, M.D. (Zurick, 1954); J. Lawrence Frank, M.D. (Duke, 1965); Stephen N. Lang, M.D. (Illinois, 1965); C. Robert Lincoln, M.D. (Med. Coll. of Virginia, 1960); Angus M. McBryde, Jr., M.D. (Duke, 1963); Robert E. Musgrave, M.D. (Tennessee, 1946); Howard A. Wright, M.D. (New York Univ., 1943).

Clinical Associates: Delos W. Boyer, M.D. (George Washington, 1950); Albert T. Jennette, M.D. (North Carolina, 1959); Glendall L. King, M.D. (Washington Univ., 1955), Ph.D. (Illinois, 1949); Leslie C. Meyer, M.D. (Nebraska, 1943); George R. Miller, M.D. (Rochester, 1944); Ronald A. Pruitt,

M.D. (Med. Coll. of Virginia, 1959).

Clinical Instructor: William J. Callison, M.D. Clinical Lecturer: William McK. Roberts, M.D.

DIVISION OF OTOLARYNGOLOGY

Professor: William R. Hudson, M.D. (Bowman Gray, 1951), Chief.

Professor: George Baylin, M.D. (Duke, 1937).

Associate Professor: Patrick D. Kenan, M.D. (Duke, 1959).

Associate Clinical Professors: George B. Ferguson, M.D. (Jefferson Med. Coll., 1932); Carl M. Patterson, M.D. (Maryland, 1944).

Assistant Professors: John H. Casseday, Ph.D. (Indiana, 1970); T. Boyce Cole, M.D. (North Carolina, 1962); Joseph C. Farmer, Jr., M.D. (Duke, 1962).

Assistant Clinical Professor: Seth G. Hobart, Jr., M.D. (Virginia, 1950).

Associate: Robert G. Paul, Ph.D. (Oklahoma, 1969).

Clinical Associate: Edward V. Hudson, M.D. (Bowman Gray, 1962); William B. Inabnet, M.D. (Louisiana, 1958); Robert L. Lawrence, M.D. (Vanderbilt, 1963); Thaddeus H. Pope, Jr., M.D. (North Carolina, 1957).

DIVISION OF PLASTIC AND MAXILLOFACIAL SURGERY

Professor: Kenneth L. Pickrell, M.D. (Johns Hopkins, 1935), Chief.

Professors: Nicholas G. Georgiade, D.D.S., M.D. (Duke, 1949); Galen W. Quinn, D.D.S. (Creighton, 1952), Orthodontics; Edward Clifford, Ph.D. (Minnesota, 1954).

Assistant Professors: Kenneth R. Diehl, D.M.D. (Emory, 1961), Orthodontics; Donald Serafin, M.D. (Duke, 1964).

Research Associates: Ruth S. Georgiade, M.A.; William A. Harris, M.A.

DIVISION OF UROLOGIC SURGERY

Professor: James F. Glenn, M.D. (Duke, 1953), Chief.

Professors: E. Everett Anderson, M.D. (Duke, 1958); John E. Dees, M.D. (Virginia, 1933); James H. Semans, M.D. (Johns Hopkins, 1936).

Associate Professors: Robert A. Bonar, Ph.D. (California at Berkeley, 1953), Biophysics; John H. Grimes, M.D. (Northwestern, 1965).

Associate Clinical Professors: Jack Hughes, M.D. (Pennsylvania, 1943); Louis C. Roberts, M.D. (Duke, 1934).

Assistant Professors: David F. Paulson, M.D. (Duke, 1964); John L. Weinerth, M.D. (Harvard,

Assistant Clinical Professor: A. James Coppridge, M.D. (Virginia, 1953); Joyce D. Coughlin, M.D. (Buffalo, 1944); Stephen V. Kishev, M.D. (Univ. of Sofia, Bulgaria, 1946).

Associate: Don D. Mickey, Ph.D. (Louisiana State, 1969).

Clinical Associates: Hector H. Henry, II, M.D. (Tulane, 1965); Alexander Maitland, III, M.D. (Yale, 1955); Randall B. Vanderbeek, M.D. (Duke, 1963); Vernon H. Youngblood, M.D. (Emory, 1944).

Clinical Instructor: Edwin M. Tomlin, M.D. (Tennessee, 1946).

Research Associates: Yousuf Sharief, Ph.D. (North Carolina State, 1973); Kenneth Stone, Ph.D. (Colorado, 1971); Marie P. Stone, B.A.

Clinical Research Associate: Dannie H. King, M.S.

PROGRAM IN HEARING AND SPEECH DISORDERS

Professor: LuVern H. Kunze, Ph.D. (Iowa, 1962), Director.

Associate Professor: Raymond Massengill, Jr., Ed.D. (Virginia, 1968).

Associate: Burton B. King, M.D. (Northwestern, 1955). Assistant Professor: Allen S. Hall, Ph.D. (Ohio, 1970).

Instructor: Linda G. Sipe, M.A.

Required Course

SUR-200—the required course—is given in the second year and consists of a eight-week clinical clerkship for each student, with the primary aim the presentation of those concepts and principles which characterize the discipline of surgery. Basic and objective studies which are the foundation of surgical topics are presented in informal seminars three times weekly and include antisepsis and surgical bacteriology, wounds and wound healing, inflammation, fluid and electrolyte balance, shock, the metabolic response to trauma, biology of neoplastic disease, gastrointestinal physiology and its derangements, blood coagulation, thrombosis, and embolism.

The students are divided into small groups and each is assigned a senior surgical instructor. Rounds at the bedside are made three times weekly with the faculty. Each morning students attend clinical rounds with the resident staff for discussion of surgical diagnosis and therapeutics. A one-hour session daily is devoted to a surgical speciality demonstration including conferences in neurosurgery, orthopaedics, otolaryngology, plastic surgery, and urology. Students are assigned patients on the surgical wards for diagnosis and management.

Electives

SUR-201(C). Advanced Surgery—Emphasis Cancer. Advanced concepts in surgery will be presented in seminars, and in ward, clinic, and operating room experiences. Fifty to 75 percent of the time will be devoted to clinical cancer and related basic topics, and the remainder to surgery generally. (Note: A seminar will be the same as in SUR-291. The student therefore may elect to take SUR-201 or 291 but not both.) Term: 1. Weight: 8. Shingleton, Wells, and Staff

SUR-202(C). Advanced Surgery—Emphasis Cardiovascular-Thoracic. Advanced concepts in surgery will be presented in seminars, and in ward, clinic, and operating room experiences. Fifty to 75 percent of the time will be devoted to cardiovascular-thoracic surgery and related basic topics, and the remainder to surgery generally. Term: 2. Weight: 8; 2 for seminars only. Sabiston, Anderson, Oldham, Sealy, Silver, Wolfe, and Young

- SUR-203(C). Advanced Surgery—Emphasis Transplantation. Advanced concepts in surgery will be presented in seminars, and in ward, clinics, and operating room experience. Fifty to 75 percent of the time will be devoted to clinical transplantation and related basic topics, and the remainder to surgery generally. Term: 3. Weight: 8; 2 for seminars only. Stickel, Seigler, Amos, and Staff
- SUR-204(C). Advanced Surgery—Emphasis Gastro-intestinal and Trauma (Patient Care). Advanced concepts in surgery will be presented in seminars, and in ward, clinic, and operating room experiences. Fifty to 75 percent of the time will be devoted to surgery of the alimentary tract and trauma and related basic topics, and the remainder to surgery generally. Term: 4. Weight: 8; 2 for seminars only. Peete, Grimson, Shingleton, Seigler, Thompson, Clippinger, and Jones
- SUR-219(C). Advanced General and Thoracic Surgery (V. A. Hospital). Special attention will be given to those subjects in surgery common to all medical practices. Patients will be assigned to the students. The major emphasis will be on physiologic and pathologic changes, diagnosis, and the indications for operation. Every term. Weight: 8. Postlethwait, Oldham, Silver, Seigler, Stickel, Scott, Jones, and Wechsler
- SUR-221(C). Surgical Specialities and Ophthalmology (V. A. Hospital). The student will attend selected conferences of all the surgical specialities and ophthalmology. Additionally he will select 2 or 3 of these specialities in which to concentrate experience (on one service at a time) in the operating rooms, clinics, and wards of the V. A. Hospital. Pathophysiology, diagnosis, and treatment will be emphasized. Every term. Weight: 8. Postlethwait, Chandler, Cole, Dees, Thompson, Urbaniak, and Cook
- SUR-222(C). Clinical Dentistry. Normal and abnormal development of head and oral structures. Importance of teeth for mastication, speech, and esthetics. Pediatric to geriatric dental disease, its prevention, examination, diagnosis, and treatment. Surgical correction and clinical management of oral surgical problems. Clinical duty. Every term. Weight: 1. Quinn, Ross, Diehl, and Georgiade
- SUR-223(C). Medical and Surgical Renal Disease. Experience is offered in diagnosis and management of surgical diseases of the urinary tract and medical renal diseases with emphasis on clinical patient care. Participation in special urologic clinics and exposure to hemodialysis is offered with emphasis upon renal transplantation, renal failure, renovascular hypertension, and other aspects of medical and surgical disease. Every term. Weight: 8. Glenn, Robinson, and Respective Staffs
- SUR-227(C). Clinical Urologic Surgery. The diagnosis, management, and surgical treatment of patients with urologic disorders will be stressed. Students will be afforded intimate association with the entire staff in the clinics, wards, and operating rooms and will participate in surgery. Cystoscopic and urographic diagnostic methods along with other techniques will be taught. Every term. Weight: 8. Glenn, Dees, Anderson, Grimes, and Staff
- SUR-230(C). Seminar in Urologic Diseases and Techniques. Lecture-seminar course by members of the staff in urology and radiology, providing an introduction to the spectrum of urologic diseases, amplified by demonstration of urologic and radiologic diagnostic methodology. Clinical problems to be stressed include endocrinopathies, pediatric urology, obstructive uropathies,

renovascular hypertension, urinary calculi, and urologic malignancies. Informal seminars given weekly. Every term. Weight: 2. Glenn, Dees, Anderson, Barry, Semans, Grimes, and Staff

SUR-233(C). Basic Neurosurgery Course. Disease conditions commonly encountered in neurosurgery are presented. Clinical presentation of a common neurological disorder such as brain tumor or head injury is made by a member of the staff. Clinical features and plan of diagnostic investigation are stressed. The clinical disorder is used as a focal point from which to carry the presentation into the basic science areas related to the clinical problem. Terms: 1, 2, 3, or 4. Weight: 1. Mahaley, Cook, and Kramer

SUR-235(C). Clinical Neurosurgery. Course is designed for those students with future interest in the neurological sciences. Duties include the work-up and care of inpatients, work-up of clinic patients, assistants in the operating room, routine postoperative care, daily rounds, and night call. Weekly conferences are held in neurology, neuropathology, and neuroradiology, neurophysiology and anatomy, and special lectures. Every term. Weight: 8. Odom, Nashold, Mahaley, Cook, and Kramer

SUR-237(C). Investigative Neurosurgery. The student is assigned a project related to the neurological sciences and is provided with technical help, recording equipment, and experimental animals necessary for its completion. Each student plans and executes his own individual project, with the help of the neurosurgery staff. Weekly conferences are also attended. Terms: 1, 2, 3, or 4. Weight: 8. Odom, Nashold, Mahaley, Cook, and Kramer

SUR-239(C). Clinical Otolaryngology. This course will provide the student with a comprehensive survey of clinical otolaryngology. Duties will include participation in both outpatient clinic activities and inpatient care in addition to assisting in the operating room. The student will participate in ward rounds and in the various conferences held by the division. Every term. Weight: 4 or 8. Hudson, Kenan, Cole, and Farmer

SUR-240(C). Otolaryngologic Seminar. This conference and demonstration course will provide an introduction to a variety of clinical problems in otolaryngology. Lectures will be supplemented with case presentations illustrating problems encountered in this field. Every term. Weight: 1. Hudson, Kenan, Cole, and Farmer

SUR-245(C). Reconstructive Plastic Surgery. Study of broad principles of trauma, wounding, healing, and varied reparative processes. Every term. Weight: 6. Pickrell, Georgiade, Thompson, and Staff

SUR-255(C). Medical Speech Pathology. Diagnostic and rehabilitation treatment used with the patients at the medical center, including articulation disorders, delayed speech development, cleft palate, stuttering, voice disorders, aphasia, cerebral palsy, language disorders, mental retarded speech, lisping, oral inaccuracy, laryngectomy, and other disorders of speech not falling under one certain category. Every term. Weight: 1. Massengill

SUR-259(C). General Principles of Orthopaedics. A full or part-time experience on the Orthopaedic Service with duties and responsibilities similar to a junior intern. Inpatient care, outpatient examination, and operating room experience are included. Individual or group discussions each day with attending staff. The purpose of the course is to present broad concepts of orthopaedics to students planning general practice, pediatrics, allied surgical specialities or

orthopaedics. Every term. Weight: 4 or 8; 2 for seminars only. Goldner, Clippinger, McCollum, Bossett, Urboniak, Gaines, Harrelson, and Staff

SUR-261(C). Office and Ambulatory Orthopaedics. A full or part-time experience on the Orthopaedic Service with duties and responsibilities similar to a junior intern. Inpatient care, outpatient examination, and operating room experience are included. Individual or group discussions each day with attending staff. The purpose of the course is to offer clinical experience to students who have completed the seminar portion of Surgery 259(C). Rotations will be similar to those of Surgery 259(C). Terms: 2 or 4. Weight: 8. Bossett, Clippinger, Goldner, McCollum, Urboniok, Bugg, Coonrad, Kapoor, Lincoln, and Glosson

SUR-267(C). Clinical Conference in Cerebral Palsy and Children's Orthopaedics. Conference is arranged for those interested in neurological disease, pediatric orthopaedic problems, and related fields. These conferences demonstrate both the individual and group approach to the patient with complex neurologic conditions as it effects both growth and development. Outpatients and inpatients are utilized for subject material. Staff personnel readily available for individual seminars. Terms: 1, 2, 3, or 4. Weight: 2 or 4. Coonrod, Bossett, and Goldner

SUR-275(C). Electromyography. This course is an introduction to the theory, techniques, and practice of clinical electromyography. Conference and demonstrations are the principle methods of instruction. The student participates in all phases of diagnostic study and learns the indications for use of electromyography as well as the interpretation of data. Every term. Weight: 2. Clippinger, Urbaniak, and Orthopoedic Stoff

SUR-277(C). Orthopaedic Research. Individual projects are assigned for completion during a limited period of time. A student works with an investigator in the orthopaedic laboratory either at Duke Medical Center or the Durham Veterans Administration Hospital. Clinical investigative studies are also available at both institutions. Every term. Weight: 8. Goldner, Urboniok, Goines, Horrelson, Evons, Orthopaedic Senior Staff, and House Staff

SUR-281(C). Introduction to Fractures and Musculoskeletal Trauma. Students will participate in the emergency management of patients through the Duke emergency room primarily, but also through Watts, and the Durham V. A. Hospitals. Principles of fractures in trauma will be given throughout the week at specified times and attendance at fracture clinic will be required. Every term. Weight: 3. Entire Senior Staff of Duke and Wotts, supervision by Dr. Goldner at Duke, Dr. Urboniak at V. A., and Dr. Bugg at Wotts

SUR-291(C). Cancer: Community Health Sciences, Ob-Gyn, Pediatrics, Pathology, Radiology, and Surgery Aspects. Taught by an interdepartmental faculty, course consists of weekly seminars, Thursday 3:00-5:00 p.m. and conferences on Wednesdays 12:00 Noon-1:00 p.m., and Saturday 8:30-9:30 a.m. in clinical and related basic aspects of oncology; and ward and clinic experiences in diagnosis and treatment (remaining time). The student may elect one clinical department for the ward and clinical experiences or work in an experimental oncology laboratory. Terms: 1, 2, 3, and 4. Weight: 8 hours-full course; 2 hours-Seminars and Conferences. Shingleton, Heyden, Abramson, Johnston, Porter, Former, Weed, Silbermon, and Metzgar

SUR-299(C). Advanced Surgical Clerkship. This course is structured to provide the student with a comprehensive approach to surgical disorders. Each

student will choose to work, in the clinics, on the wards, in the operating rooms, and in the laboratory, with one senior surgeon for eight weeks. Advanced concepts in surgery will be taught and problem solving techniques will be demonstrated. Every term at discretion of instructor. (Student should make advanced arrangements with specific instructor.) Weight: 8. Sabiston, Jones, Oldham, Postlethwait, Sealy, Seigler, Shingleton, Silver, Stickel, Young, Anderson, Wells, and Wolfe

SUR-301(C). Emergency Surgical Care. Students desiring additional experience working with care of emergency surgical patients will be assigned to the emergency room 1-3 evenings per week (one evening per week per unit of credit to be earned). They will participate in the diagnosis and care of traumatic and other acute surgical emergencies. Every term. Weight: 1-3 (more by arrangement). Stickel

Special Interdisciplinary Training Programs

BSP-201(B). Behavioral Sciences Study Program. The focus of the study program will be to obtain an understanding of basic processes underlying human behavior. This will involve a year-long experience designed to familiarize the medical student with significant issues in the behavioral sciences and the methodology used to investigate such issues. Each student will be given the opportunity to focus on some determinant of human behavior, which may include biological, psychological, developmental, or social factors. The major portion of the student's time will be spent in closely supervised library or laboratory research in an area of the student's interest resulting in the preparation of a report of the work. A seminar series is also held, the students presenting topics chosen from proposed material as well as a summary of their own work. Students enrolled in this program may take courses given in the Medical and Graduate Schools and it is expected that they will integrate and balance their work with some courses of general medical importance. The faculty for the BSP is an interdisciplinary group representing several departments of the Medical School and University and is involved in a broad range of interests in individual and group behavior. Every term. Weight: 9 per term. Program Director: Clifford

CVS-201(B). Cardiovascular-Respiratory Sciences Study Program. The Study Program in Cardiovascular-Respiratory Sciences (CVS) is designed to offer third year students instruction for one academic year in basic sciences as applied to the understanding of the Cardiovascular and Respiratory Systems in Health and Disease. The program is interdepartmental in nature and will constitute a full credit load for those students who participate. It is com-

posed of three parts that run concurrently.

1. Individual Tutorial. The student will identify with a senior member of the medical school faculty who is participating in the program and whose field of work is in the cardiovascular or respiratory area. The major part of the educational program for the student will be in the form of individual tutorials with this member of the staff. This tutorial may range from fulltime independent research to an intensive study experience for the student. The student and his tutor will develop a plan and the student will review it with the Director of the Program.

2. Group Seminar. A seminar series will be developed according to the needs and desires of the students, the purpose of which is to read and discuss selected papers and/or discuss problems and topics which arise in the course of the lectures or are complementary to them. Students will be active participants in the seminar, and through this mechanism it is hoped to integrate knowledge of cellular physiology and pharmacology into an understanding of organ

system function and control.

3. Lecture Courses. The following courses are required: The Heart (207) and Peripheral Circulation (205) and the Respiratory System (208) in Health and Disease. These courses in cardiovascular and respiratory physiology will present selected topics in cardiovascular and respiratory physiology including analysis and evaluation of experimental and clinical studies relating to selected diseases of the circulation, cardiac electrophysiology and arrhythmias, ventricular-atrial function, congenital disordered function and coronary blood flow, pulmonary mechanics, central and peripheral regulation of ventilation, pulmonary circulation and respiratory responses to exercise, altitude, and hyperbaric environments.

The above plan provides a structured and recommended curriculum design. Within this framework multiple pathways are available because of the concentration of effort in the tutorial experience. Tutorials can be arranged within any of the basic science departments or with individuals in clinical departments whose orientation or research is consistent with the goals of the program. Once a tutor is identified, added flexibility is gained by having the option to elect courses in addition to the required course in physiology and pharmacology or to elect seminars in addition to the group seminar. Terms:

1, 2, 3, 4. Weight: 9 per term. Program Director: E. Johnson

DDS-201(B). Development and Differentiation Study Program. Recent advances in molecular and cell biology provide new concepts in the area of developmental biology. This program is designed to give the medical student an appreciation of the phenomena of development as well as advanced training in a variety of biomedical disciplines. In order to provide a comprehensive coverage for many areas the program has been organized on a multidisciplinary level.

Particular emphasis is placed on the biochemistry of the cell surface as a basis of cell recognition, control of the cell cycle and overall tissue organization. An analysis of protein nucleic acid interactions in chromosome structure and function are considered in the light of newer concepts of transcriptional and translational control. Studies also include nuclear cytoplasmic interactions as well as hormone induction of differentiation and development. The rapidly expanding body of knowledge gained from these approaches will be examined by the medical student through seminars as well as by direct observation in the laboratories of participating faculty. The program provides an opportunity for the medical student to obtain an introduction for advanced training or research in a field of study of his interest including, for example, hematology, endocrinology, pediatrics, and immunology.

The program can be selected by the student for one or two semesters. First Semester: the first semester will consist of (1) a series of lectures given three times a week to cover basic principles, (2) a series of seminars conducted by the students under the guidance of the faculty, and (3) rotation through the laboratories of the participating faculty. During this rotation the student will learn through direct observation, participation, and discussion with the staff of each laboratory. The student may also undertake research in one of the

laboratories if he so desires.

The students will meet Monday, Wednesday, and Friday at 11:30-12:10 to attend the introductory course in Development and Differentiation. This course covers basic principles and is taught by the entire faculty for the purpose of

establishing a firm foundation for the more advanced studies to be given in the second semester. The students will also prepare and attend seminars in Differentiation and Development. These seminars will be conducted by the

students under the guidance of the faculty.

The students also have 10-12 weeks of laboratory rotation. This laboratory rotation will be through the laboratories of the participating faculty. The experience will occupy 3-5 hours per week and will consist of a series of laboratory experiments to learn through direct observation, participation, and discussion with the staff of each laboratory. The experiments are carefully selected to provide an opportunity for the student to become familiar with different types of research material as well as specific laboratory techniques. The student has the opportunity not only to learn experimental design but to become familiar with unique sources of material.

Upon entrance into the program the student will be interviewed by the faculty. This will be important in order to take this opportunity to examine for any obvious deficiencies and suggest a program that will complement a future medical career. It should be emphasized that the students are not encouraged to take a large series of courses and in some cases, for example, a student may wish to start a research tutorial early in the semester rather than deferring this decision to a later date. Students may also elect to spend part of their time in a library project under close faculty supervision. If the student elects a library project, this work will be circulated among the faculty and will be presented in an in-depth seminar. As a general rule mornings are reserved for course work and the afternoons for laboratory rotation and tutorials.

The students in the second semester will continue the course in development as well as other appropriate courses composing the study program.

It should be emphasized that the student is provided considerable flexibility in this program since there is no penalty for taking 18 hours of course work for the first semester only. Term: Regular Term 1 and 2 required, Regular Term 3 and 4 optional. Weight: 18 per semester. Co-Chairmen: McCarty and Counce

EDR-201(B). Endocrinology and Reproductive Biology Study Program. This interdepartmental program is designed to provide third-year medical students with an opportunity for in-depth study of cellular endocrinology, neuroendocrinology, and reproductive biology as these relate to the function of the endocrine and reproductive systems in health and disease. In this program, major emphasis is placed on development of a plan of independent study for each student which is based on a tutorial or preceptorial association with an individual member of the program faculty. In addition, all members of the program, including faculty, meet regularly for seminars, discussions, and guest lectures on selected topics of interest to the entire group. A student normally spends four terms in the program and receives full credit for the medical school advanced basic science requirement. Although the program traditionally begins in September, its structure is potentially flexible enough to accommodate those who wish to begin in any term, including the summer terms. It should be emphasized that while the primary aim of the program is to provide an intensive experience in endocrinology and reproductive biology, opportunity is provided within the program format for students to broaden their basic science background by taking courses which may be unrelated to the subject matter of the study program.

For all students, the program consists of the following components:

1. An Individual Tutorial. This is carried out in association with one or more senior faculty members selected by the student, and generally involves laboratory research in a particular area of endocrinology or reproductive biology. Before entering the program, students are asked to complete their tutorial arrangements. In order to facilitate this process, the Program Director will, on request, direct students to appropriate members of the program faculty or other members of the medical school faculty whose speciality and research

interests would permit them to participate in the program.

9 per term. Director: Fellows

2. The Seminar. Held weekly on Tuesday afternoon throughout the academic year, the seminar covers various topics in endocrinology and reproduction in a format designed to explore current concepts, primarily through critical reading and discussion of contemporary literature. The seminar utilizes the background and experience of all members of the program faculty, guest speakers, and active student participation to develop an integrated approach to basic problems in endocrinology and reproductive biology. Taken as a whole, the seminar series provides broad coverage of endocrine phenomena from a cell biology viewpoint. The application of basic concepts to clinical problems and human disease is considered to provide continuity with future clinical training.

3. Lecture Courses. There are no specific course requirements in this program. In order to provide additional breadth of preclinical experience related to immediate or long-term interests, students are encouraged to take up to four units of course work per term. As noted above, individual course selections are not limited to those related to endocrinology or reproductive biology, although consultation with one's preceptor is recommended before making final selections. PHS-417, Cellular Endocrinology and/or PHS-418 (ANA-418), Reproductive Biology may be recommended to those students who desire additional formal coverage of basic mechanisms. Every term. Weight:

IND-300(B) or (C). Interdisciplinary Seminar in Medical-Legal-Ethical Issues. The seminar will be composed of students in approximately equal number from the Medical, Divinity, and Law Schools, and will explore important medical, legal, and ethical features of current issues (e.g., transplantation, euthanasia, abortion). Faculty and resource persons from all three schools will participate in the seminar. Up to four introductory sessions in the fall semester for all participating students and faculty will be concluded with arrangement of interdisciplinary terms and selected topics. Student teams will meet during the winter and consult at intervals with faculty. All seminar participants will reassemble for a series of weekly meetings, ending in mid-March, to present and discuss the topics researched. Any topic, properly focused, may be considered. Terms: 2 and 3, credit awarded. Term 3. Weight: 2. Gallemore, Shimm, Smith, and Other Faculty Members from the Medical, Law, and Divinity Schools

ISP-201(B). Immunology Study Program. This study program is designed for students whose career goals lie in one of the many clinical specialities which interface broadly with immunology: allergy-immunology, infectious diseases, rheumatology, immunohematology, transplantation, and oncology. A general fund of information is provided in a survey course, Medical Immunology (MIC-330), which emphasizes clinical examples of basic immune mechanisms. The student may also elect concurrent training in the biochemistry of macromolecules, molecular genetics, or cellular immunophysiology. Seminars by faculty and a regular schedule of guest lecturers are supplemented by basic and clinical topics selected for student seminars. Each student is assigned to a faculty preceptor; in collaboration with the preceptor, the student ac-

complishes a research project and survey of relevant literature. This laboratory work is continued throughout the year and formulated for presentation prior to completion of the study program. The student is expected to gain a useful personal perspective of current immunologic thought as well as the experience and fund of information necessary for clinical application.

The student's effort and time are divided as follows:

- 1. Medical Immunology (MIC-330). Basic study of the immune responses to antigenic substances, including the morphology, ontogeny, and phylogeny of the immune system; antigens, haptens, carriers, and immunogenicity; antibody structure, genetics, production and catabolism, and interaction with antigen; cell mediated immunity and delayed hypersensitivity, lymphokines and transfer factor; cellular interactions and regulation of the immune responses, the complement system; inflammation and its relationship to the immune response; immediate hypersensitivity reactions; anergy; autoimmunity; immunity to infectious disease; and disorders of antibody production. Special subjects emphasized in depth include immunological deficiency diseases; tumor immunology; transplantation immunology and immunogenetics; and immunohematology. Patient presentations when applicable. (Spring 1976.) 6 units. Amos, C. Buckley, R. Buckley, Levy, Rosse, and Snydermon
- 2. Optional additional formal courses strongly recommended: Molecular Genetics (BCH-216), 3 hours; or Cellular Immunophysiology (PHS-420), 2 hours (spring). Macromolecules (BCH-293), 4 hours (fall).

3. Immunology Division Seminar (MIC-332.1-332.8), 2 hours per week, 1 unit per term. An ongoing seminar series of the Division of Immunology arranged annually with visiting scientists and Duke faculty.

4. Seminars for Research Progress. A staff, graduate student, and medical

student seminar on current work. 1-2 hours per week.

5. Preceptorship. Twenty or more hours per week of precepted investigation. Terms: 3 and 4. Weight: 9 units per term. Program Director: Amos

MRT-399(B). Medical Research Training Program. The Research Training Program is an interdepartmental program offered to third-year students and to qualified residents and fellows with the M.D. degree. The purpose of the program is to provide students with the theoretical background and practical experience necessary for a basic science approach to biomedical research.

Operationally, the program can be divided into two parts:

 From September to November, students receive an intensive and coordinated series of lectures and laboratory exercises in the areas of enzymology, protein chemistry, cellular and molecular ultrastructure, immunochemistry, molecular biology, virology, and active transport. Laboratory exercises are designed to give students practical experience in the use of various research techniques such as: electrophoresis; chromatography; various immunochemical procedures; preparative and analytical centrifugation; spectrophotometry; growth, assay, and genetics of bacteria, bacteriophage, mammalian viruses, and mammalian cells in tissue culture; use of radioisotopes. Lecture material covers the theory of these laboratory exercises and includes a great deal of general information pertaining to the current state of knowledge in many areas of biomedical science. The purposes of the first three months of the course are to carefully and personally instruct students in the experimental techniques used in modern biomedical investigation, and to provide them with the background of basic scientific theory necessary to successfully carry out an individual research project during the second part of the course. During this time students spend a full eight hours per day in lecture and laboratory

in continued contact with their colleagues and one or more instructors. A strong group interaction between students, fellows, and staff contributes

to an effective teaching and learning atmosphere.

2. From December to June, students work on individual research projects under the supervision of a faculty member. A student has a virtually unlimited choice of research projects and may elect to work in the laboratory of anyone in the Medical Center who is doing basic biomedical research. Staff and students meet once a week for approximately three months in the spring for a general seminar series, and in late May students present seminars on their research accomplishments to date.

A formal course in biostatistics meets throughout the year. Terms: 1, 2, 3,

and 4. Weight: 9 units per term. Kredich and Staff

NSS-201(B). Neurosciences Study Program. The Neurosciences Study Program is an interdepartmental, interdisciplinary program designed to coordinate the study of neurobiology in the third year curriculum. The program permits the student an opportunity for independent study and growth in neurobiology under the guidance of several basic science faculty members engaged in research on the nervous system. In recent years significant developments in molecular biology, electron microscopy, neurophysiology, and neurochemistry have given us an approach to the understanding of brain function at a cellular and subcellular level. In addition, increasing sophistication has been introduced in studies at an organismic level. These developments provide hope for a greater understanding of the biological basis of brain function and tremendously increase our need for well-trained physicians to understand the fundamental basis of neurobiology and to pursue careers relevant to the specific area as well as to all of medicine.

The program will last for thirty-two weeks. Participation in the program will require active participation in a neurobiology study group tutorial and in a preceptorship with one of the basic science faculty members. The major emphasis of the program will be on individual laboratory research training under the preceptorship of one of the members of the training staff. In addition, the trainee, in consultation with his preceptor, will be encouraged to enroll in one or two courses relevant to his special interests and career plans. A wide range of projects is available for interested students. For physiologic approaches to the nervous system the laboratories of Dr. George Somjen, Dr. Antonio Escueta, Dr. John Moore, Dr. Frans Jobsis, and Dr. Wesley Cook are available. For pharmacology, the laboratory of Dr. Saul M. Schanberg, Dr. James David, and Dr. Toshio Narahashi; for morphological studies, the laboratories of Dr. J. David Robertson, Dr. M. Steven Mahaley, Dr. F. Stephen Vogel, and Dr. Talmage Peele are available. For virologic studies, the laboratories of Dr. John Griffith, Dr. Darell Bigner, Dr. Nelson Levy, and Dr. M. Steven Mahalev are available. For biochemical studies, the laboratories of Dr. Stanley H. Appel, Dr. Ara Tourian, Dr. Norman Kirshner, Dr. Allen Roses, and Dr. Bernard Kaufman are available.

The neurobiology study group tutorial will permit students to gain understanding of several different aspects of neurologic science as well as topics in the biology of behavior. These meetings are held two times a month and consist of topics selected by the students from a list provided by the faculty members of the program. The range of topics include pertinent subjects of neuroscientific relevance such as aspects of macromolecular synthesis, neural development and function, neural subsystems and physiologic operation, communication and coding in the nervous system, recognition and control at a molecular level, and selected aspects of molecular neurobiology. In addition

the students are required to attend Monday afternoon seminars from 4:00-6:00 p.m. which are part of the postdoctoral program in neurobiology. These sessions are given by postdoctoral students and cover subjects relevant to the biology

of behavior and essential to an understanding of neurobiology.

At the termination of their laboratory experience, all students are required to submit a paper describing their work and accomplishments during the year. Students are encouraged to attend one meeting on a national level considered by their preceptors to be essential to their educational experience in the neurosciences. Terms: 1,2,3, and 4. Weight: 9 units per term. Appel, Schanberg, Somjen, Escueta, Vogel, Peele, Mahaley, and Tourian. Program Director: Appel

VSP-201(B). Virology Study Program. The objective is to indicate the relevance of investigative virology to problems of clinical medicine and to provide an introduction to recent advances in virus research. The program will consist of:

1. Lectures and seminars. Students will take two courses consisting of lectures and seminars: MIC-304(B)—Basic Medical Virology, and PTH-376(B)—Pathology of Viral Diseases. Topics to be discussed in Basic Medical Virology (2 hours per week) are: structure and replication of major virus groups as a basis for the understanding of viral pathogenesis; cellular and host responses to viral infections; immune responses to and the immunopathology of viral infections; DNA and RNA tumor viruses and their possible role in malignancy. In the Pathology of Virus Diseases (4 hours per week) emphasis will be placed on clinical, pathological, immunological, and epidemiological relationships in viral diseases.

2. Other courses. Students in the program will have an option to take one

additional relevant lecture course approved by the course directors.

3. Individual tutorial. During the remainder of the time, each student will be supervised by a faculty member participating in the program in a study project. It is generally believed that it would be most beneficial for a student to carry out a laboratory research project. Lectures and seminars have been planned so that students may spend at least five or six hours each day in the laboratory. In the cases where program directors would approve of a project of a different nature, the student again would be supervised by one of the participating faculty members. In a study project of this kind, a student may be expected to take more than one additional relevant course. (See the section on other courses.) Terms: 1 and 2. Weight: 9 units per term. Bigner, Bolognesi, Bonar, Cate, Daniels, Griffith, Hall, Harriman, Joklik, Katz, Lang, Levy, Metzgar, Nichols, Smith, Snyderman, Wilfert, and Zweerink





School of Nursing



The Nursing Program

The School of Nursing offers a four year course of study leading to the degree of Bachelor of Science in Nursing. Thirty-two courses including small-group learning experiences and twelve upper division required courses in nursing are necessary to complete the program.

The first two years of the curriculum consist of required and elective courses in liberal arts and basic sciences. The third and fourth years consist of the required courses in the nursing major with provision for electives in arts and sciences or nursing. Opportunities are provided for students to under-

take independent studies in nursing.

Early in the junior year, students participate in clinical nursing practice where they acquire knowledge, skills, and attitudes appropriate for professional nursing. Provision for elective courses in every semester enables the student to pursue a secondary or complementary field of interest, including the opportunity to acquire a double major. Option to pursue electives in nursing provides the opportunity for each student to begin specialization in clinical nursing.

Graduates are eligible to apply for examination for licensure as Registered Nurses in any state. Additional information may be obtained by writing for the

Duke University Bulletin of Undergraduate Instruction.

The Master of Science in Nursing program prepares nurses to assume major leadership roles in the improvement of methods of delivery and the quality of health care of selected target populations in a chosen setting(s). The practice sites of students can encompass all stages and phases of health and illness as experienced by people as individuals, as members of families, and as members of other groups.



The faculty believes that graduate education best takes place in an environment which fosters a combination of wisdom and imagination and promotes curiosity and freedom to innovate, rather than one which is limited to the acquisition of those knowledges and skills which are required for practice in the present.

The graduate of the program, regardless of the chosen area of clinical interest, will be expected to: (1) demonstrate expertise in a defined area of practice, (2) conduct inquiry into the nature of health and the practice of nursing, (3) employ strategic approaches to changing social systems for the improvement of health care, and (4) collaborate in the formulation of health policies and the delivery of health care.

The curricula plan emphasizes flexibility within a basic structure to best afford the realization of students' varying professional goals. Students concentrating on selected areas of nursing practice design the clinical component of the care courses in a manner suited to the achievement of their specified

goals, but participate in seminars with student peers.

The program is three semesters in length for a full-time student and can be completed within one calendar year. Part-time study is available with the program completion expected within three years. Clinical facilities and learning resources in the Medical Center and surrounding community are varied and easily accessible.









Curriculum Plan. First semester: Research and Theory Development in Nursing I (4 units); A Systems Perspective for Nursing, Practice I (5 units); Elective (3 units); Elective (3 units). Second Semester: Research and Theory Development in Nursing II (4 units); A Systems Perspective for Nursing Practice II (5 units); Elective (3 units); Elective or Thesis (3 units). Third Semester: Clinical Practicum (10 units); Elective or Thesis (3 units).

Electives may be nursing or non-nursing courses. A thesis option may be

pursued in lieu of 6 units of electives.

Students completing the program will be awarded a Master of Science in Nursing degree and will be prepared to function as clinical specialists. For those seeking positions in teaching or administration, an additional semester of courses is available.

Admission Requirements. (1) Bachelor's degree with an upper division major in nursing from a National League of Nursing accredited program. (2) An undergraduate scholastic average of *B* or better. (3) Introductory course in descriptive and inferential statistics. (4) Registration as a professional nurse.

Dates for Application. An application with all supporting documents must be submitted by: July 1, for fall semester admission; November 15, for

spring semester admission; April 15, for summer session admission.

Tuition and Financial Aid. Tuition is \$110 per unit. A number of National Institute of Mental Health traineeships are available to qualified students for full-time study in the area of mental/health psychiatric nursing.



Allied Health Division



Allied Health Division



The Allied Health Programs

The health-services educational programs offered at the Duke University Medical Center that are neither medicine nor nursing are coordinated by the Division of Allied Health. Every effort is made to keep each of these allied health programs closely related to the Medical School departments whose

fields they serve.

Several of today's allied health occupations require less than the baccalaureate level of education. Although the Duke University Medical Center has several such programs, they often are taught in junior colleges, technical institutes, or community hospitals. Such training programs in the latter institutions can frequently benefit from resources generally available only from medical centers, e.g., (1) in choosing programs appropriate to their resources and needs, (2) in developing articulated curricula, (3) in upgrading or attracting competent faculty, and (4) in arranging meaningful affiliations between the educational and the clinical care institutions that are required for many of these programs. The division will arrange, whenever possible, to help provide such resources to institutions located within the adjacent geographic region.

In recognition of the growing need for fully qualified teachers, and of the fact that Duke's facilities are limited as to the number of programs and students they will accommodate, increasing emphasis is being given to degree programs. The Bachelor of Health Science degree is now available to qualified students in the Physician's Associate Program, Medical Technology Program, and Pathology Assistant Program and has been authorized for additional

programs as warranted. In qualifying for the B.H.S. degree the courses taken must meet the University's standards of quality, rigor, and relevance. Emphasis is placed upon certain core courses to ensure this quality. During the coming year additional basic science and clinical core courses will be developed to add to courses in human anatomy, pharmacology, human physiology, clinical medicine, and community medicine.

The major allied health programs are briefly described below. More information about individual programs is contained in the Bulletin of Duke University, 1975-1976, Allied Health Division and is available upon request. Inquiries regarding specific programs should be directed as indicated for each program; general inquiries relating to the total field or two or more programs should be addressed to the Division of Allied Health, Duke University Medical Center, c/o The Veterans' Administration Hospital, Durham, N.C. 27705.

Bachelor of Health Science Degree Programs

Medical Technology. This two year program provides both academic theory and instruction in the performance of laboratory procedures which yield patient data used in evaluating total health care. The curriculum is structured so that the student may apply his knowledge in the basic sciences toward a Bachelor of Health Sciences (BHS) Degree in Medical Technology, in both the junior and senior years. Educational techniques, instrumentation, and supervision-management courses are included in the curriculum. Further information and application form requests should be directed to: Program Director, Medical Technology Program, Duke University Medical Center, Durham, N.C. 27710.





Pathology Assistant. The Pathology Assistant program is designed to meet the growing need for trained personnel to assist the pathologist in the areas of clinical diagnosis and anatomical pathology. Upon completion of the program, the student will have acquired knowledge and skills that will permit him to fill an important role in the medical field. The pathologist is a physician and scientist whose primary functions are the study, research, and diagnosis of disease. He customarily has the responsibility for the direction of the clinical anatomical pathology and surgical pathology services in the hospital. Requests for further information and application forms should be directed to: Kenneth R. Broda, Associate Director, Pathology Assistant Program, Department of Pathology, Duke University Medical Center, Durham, N.C. 27710.

Physician's Associate. More than a decade ago clinicians at Duke University Medical Center, concerned with the application of new diagnostic and therapeutic procedures, found they could safely and effectively delegate many of their tasks to nonphysicians. The physician's associate possesses a broad understanding of medicine and is capable of approaching a patient, eliciting a complete history, performing a thorough examination, organizing the data, and presenting it in such a way that a physician can visualize the medical problem. He then assists the physician in performing the appropriate diagnostic and therapeutic procedures. In addition, physician's associates provide patient care services such as cast application and removal, wound suturing, dressing changes, after-hour laboratory studies, and assessing and monitoring the progress of ill patients. Duke University Medical Center awards the Bachelor of Health Science degree to those students who have the necessary number of undergraduate hours at the time of matriculation and a certificate to all students upon successful completion of the Physician's Associate Program. Requests for further information and application forms should be directed to: Director of Admissions, Physician's Associate Program, Box CHS 2914, Duke University Medical Center, Durham, N.C. 27710.





Master's Degree Programs

Health Administration. The profession of health administration emerged early in this century in response to the increasing demand for health services. Over the years several specific areas of health administration have been identified, most notably; public health administration, hospital administration, medical care organization, and comprehensive health planning. All of these require a common set of managerial skills and a broad knowledge of the health system and its environment. It has been estimated that the system requires approximately 50,000 individuals in positions involving health administration. In recognition of the complexity and importance of hospitals, Duke University established the first graduate program in the nation for the training of hospital administrators in 1930. Request for further information and application forms should be directed to: Admissions Committee, Department of Health Administration, Box 3018, Duke University Medical Center, Durham, N.C. 27710.

Physical Therapy. The Master of Science degree program is designed to provide a broad foundation in the art and science of physical therapy and to provide opportunities for the development of skills in health administration and supervision, curriculum development, and directed teaching in physical therapy, and in advanced clinical education or research. The program is approved by the Council on Medical Education of the American Medical Association in collaboration with the American Physical Therapy Association. Request for applications and further information should be directed to: Eleanor F. Branch, Ph.D., Director of Graduate Studies, Department of Physical Therapy, Box 3965, Duke University Medical Center, Durham, N.C. 27710.

Certificate Programs

Clinical Psychology Internship. The Division of Medical Psychology, in cooperation with the Durham Child Guidance Clinic and the Durham Veterans' Administration Hospital, offers internship training in clinical psychology to qualified doctoral students. The program, approved by the American Psychological Association, provides experience in many contexts with a wide diversity of patients. Internship training emphasizes experience in the traditional activities of clinical psychologists: assessment, consultation, psychotherapy, and research. Those successfully completing the requirements for internship will be awarded a Duke University Medical Center certificate. Correspondence concerning admission to the program should be directed to: Drew Edwards, Ph.D., Box 3364, Duke University Medical Center, Durham, N.C. 27710.

Cytotechnology. Progress in the early detection of cancer by the microscopic examination of smears of cell samplings, especially from the female genital tract, has resulted in the speciality of cytotechnology. The cytotechnologist deals with the technical and diagnostic aspects of exfoliative cytology. Graduates of the program are awarded a certificate and are eligible to take the certifying examinations given by the Registry of Medical Technologists of the American Society of Clinical Pathologists. Requests for further information and application forms should be directed to: William W. Johnston, M.D., Department of Pathology, Duke University Medical Center, Durham, N.C. 27710.

Electrophysiological Technology. In 1961, Duke University Medical Center began its formal program in electrophysiological technology as an expansion of the in-service training program begun in 1955 at the Durham Veterans' Administration Hospital. Every year the laboratories in the Medical Center perform over 4,000 examinations including investigative procedures during brain surgery. Eight students are accepted into the program each July. Upon successful completion of this program, graduates are awarded a certificate and become eligible to take the certifying examination given by the American Board of Registration of Electroencephalographic Technologists. Requests for further information and application forms should be directed to: W.P. Wilson, M.D., Director, EEG Laboratory, Box 3838, Duke University Medical Center, Durham, N.C. 27710.



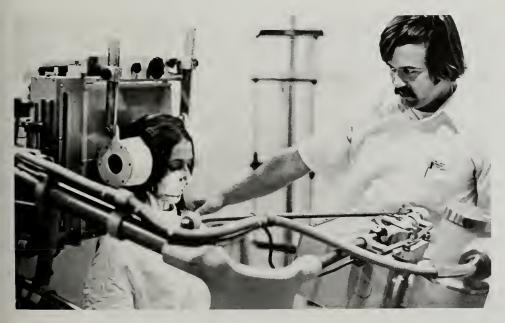


Health Administrators Management Improvement Program. The Health Administrators Management Improvement Program (HAMIP) is conducted by the Department of Health Administration at Duke University specifically to strengthen the management skills of practicing hospital administrators who have not completed formal university-based education in hospital administration. It is designed to allow the working administrator to acquire skills and knowledge for more effective management of the hospital with a minimum of time away from his job. A certificate is awarded for successful completion of the program. Forms may be obtained from Donald S. Smith, Coordinator, Box 3018, Duke University Medical Center, Durham, N.C. 27710.

Hospital and Clinical Pharmacy Residency. The Hospital and Clinical Pharmacy Residency is a twelve month postbaccalaureate program conducted by the Department of Pharmacy, Duke Hospital, Duke University Medical Center, Durham, North Carolina. The residency is designed to give the graduate pharmacist experience in the administrative aspects of hospital pharmacy management, and to offer advanced training in clinical pharmacy practice. Management of modern drug dispensing systems, such as unit dose drug distribution, intravenous admixture preparation and hyperalimentation formulation, is emphasized. Considerable experience in the patient-care setting is also gained. Competency in clinical practice and strengthening of leadership capabilities are stressed in the residency. Requests for further information and application forms should be directed to: Director, Department of Pharmacy, P.O. Box 3089, Duke University Medical Center, Durham, N.C. 27710.

Nuclear Medicine Technology. In the fall of 1967 the Division of Nuclear Medicine in the Department of Radiology of the Duke Medical Center began a full year program in Nuclear Medicine Technology. This program is approved by the American Medical Association, and upon completion of studies the student is awarded a certificate and becomes eligible to take the ARRT and RMT (ASCP) registry examinations in Nuclear Medicine Technology. Requests for further information and application forms should be directed to: Allied Health Education Building, Veterans' Administration Hospital, Durham, N. C. 27705.

Nurse Anesthesiology. In 1931 Duke University Medical Center's Department of Anesthesiology established a program for registered nurses to further their study of anesthesiology. Students learn about the physiopharmacological effects of anesthesia and related drugs, the proper techniques for their administration, and the management of an entire treatment plan for patients requiring anesthesia. Upon successful completion of the required qualifying examination, graduates are eligible for membership in the American Association of Nurse Anesthetists. Requests for further information and application forms should be directed to: Mary B. Campbell, RN CRNA, P.O. Box 3094, Duke University Medical Center, Durham, N. C. 27710.





Pastoral Care and Counseling. A graduate program in pastoral care and counseling is available to clergy of all religious groups. There are four program options: a single unit of clinical pastoral education, an internship, a residency, and a fellowship. All are designed to train ordained individuals who desire to specialize in pastoral care and counseling or to enhance their skills as parish clergy. Those who enroll in the program will be required to serve as chaplains or as pastoral counselors in the Medical Center or in the community of Durham. All program options are approved by the Association for Clinical Pastoral Education, Inc. Requests for application and further information about any of the programs should be directed to: Coordinator of Clergy Training, Box 3112, Duke University Medical Center, Durham, N. C. 27710.

Radiologic Technology Programs. The Duke University Medical Center and the Durham VA Hospital offer two radiologic technology programs: a twenty-four month certificate training program and a twelve month postgraduate advanced training program. Requests for further information regarding these programs should be directed to: Technical Director, Radiologic Technology Programs, P.O. Box 3108, Duke University Medical Center, Durham, N. C. 27710.

Respiratory Therapy. Respiratory therapy is one of the newest and fastest growing allied health specialties in the United States today, due to the increasing incidence of respiratory diseases in our society and the increasing complexity of the various modalities used in the treatment and diagnosis of these diseases. The respiratory therapist must be an expert in the therapeutic uses of such aids to the breathing process as medical gases, oxygen administering apparatus, humidity and aerosol devices, positive pressure ventilation, mechanical airways, and cardiopulmonary resuscitation. In September, 1970, the Duke University Medi-

cal Center and Durham Technical Institute initiated an associate degree program in respiratory therapy under the medical direction of the Department of Anesthesiology. It is accredited by the Council on Medical Education of the American Medical Association and approved by the North Carolina State Board of Education. At the completion of this program the student will be awarded the Associate in Applied Science degree and be qualified to participate in the national registry examination. Requests for further information and application forms should be directed to: Education Coordinator, Respiratory Therapy, Box 3911, Duke University Medical Center, Durham, N. C. 27710, or Program Director, Respiratory Therapy Program, Durham Technical Institute, 1637 Lawson Street, P.O. Box 11307, East Durham Station, Durham, N. C. 27703.

Operating Room Technology. The Operating Room Technology Program is a year long course which begins in September and teaches basic sciences including anatomy and physiology, as well as aseptic technique, history of surgery, instrument sterilization, and special techniques. All course work is coordinated by an instructor. During the clinical phase of training, students will be working directly with the surgical team scrubbing and circulating. Upon completion of the course, a certificate is awarded.

Individuals wishing to enter the program must be 18 years old, high school graduates or equivalent, and in good physical and mental health. Request for further information and application forms should be directed to: Mrs. Sandra B. McKenzie, R.N., Instructor, O.R. Technology Program, Box 3237, Duke Uni-

versity Medical Center, Durham, N. C. 27710.

Postgraduate Licensed Practical Nurse Program in Operating Room Technique. This is a one year program which begins in March or April and teaches basic sciences including anatomy and physiology as well as aseptic technique, history of surgery, instrument sterilization, and special techniques. All course work is coordinated by an instructor. During the clinical phase of training, students will be working directly with the surgical team either scrubbing or circulating. Upon completion of the course, a certificate is awarded. Individuals wishing to enter the program must be Licensed Practical Nurses between the ages of 18 and 45, and in good physical and mental health. Request for further information and application forms should be directed to: Mrs. Margaret M. Williams, R.N., Instructor, LPN Postgraduate Program, Box 3237, Operating Room, Duke University Medical Center, Durham, N. C. 27710.



Appendix

ROSTER OF HOUSE STAFF BY DEPARTMENTS

Medicine

Chief Residents: Michael R. Knowles, M.D. (North Carolina, 1971); Daniel C. Scullin, M.D. (Ohio State, 1970).

Senior Residents: Thomas M. Dugan, M.D. (Duke, 1972); Stanley W. Gruhn, M.D. (Iowa, 1972); Bruce R. Kaden, M.D. (Illinois, 1972); Douglas G. Kelling, M.D. (Harvard, 1972); Douglas R. La-Brecque, M.D. (Stanford, 1970); John E. Lawrence, M.D. (Duke, 1972); Joseph R. McClellan, M.D. (Georgetown, 1972); John R. McRae, M.D. (Duke, 1972); James L. Pool, M.D. (Oklahoma, 1972); John R. Rice, M.D. (Miami, 1968); Nancy W. Stead, M.D. (Duke, 1969); Robert B. Waterbor, M.D. (Duke, 1972).

Junior Residents: Norman E. Adair, M.D. (Missouri, 1973); Stephen C. Beuttel, M.D. (Duke, 1971); Ben P. Bradenham, M.D. (Jefferson, 1973); F. Farrell Collins, M.D. (Vermont, 1972); Pamela B. Davis, M.D. (Duke, 1973); Mark N. Feinglos, M.D. (McGill, 1973); Robert D. Fusco, M.D. (Pittsburgh, 1973); Larry S. Green, M.D. (Utah, 1973); Gary P. Hansen, M.D. (Pennsylvania, 1973); Thomas W. Hauch, M.D. (Northwestern, 1972); Barton F. Haynes, M.D. (Baylor, 1973); William L. High, M.D. (Duke, 1973); Michael C. Hindman, M.D. (Illinois, 1973); Russel E. Kaufman, M.D. (Ohio, 1973); James R. Kelly, M.D. (Duke, 1970); John G. Kelton, M.D. (Ontario, 1973); Len B. Lastinger, M.D. (Emory, 1970); David J. Lebwohl, M.D. (Harvard, 1971); Kenneth S. McCarty, M.D. (Duke, 1972); Michael L. Nash, M.D. (Duke, 1971); James E. Niedel, M.D. (Miami, 1973); David J. Oblon, M.D. (Pennsylvania, 1973); Gary S. Raizes, M.D. (Duke, 1973); Garrett L. Rogers, M.D. (Houston, 1973); William T. Rowe, M.D. (North Carolina, 1969); Edward T. Samuel, M.D. (Duke, 1973); Douglas D. Schocken, M.D. (Duke, 1973); John B. Simpson, M.D. (Duke, 1973); Robert J. Smith, M.D. (Harvard, 1973); William R. Somers, M.D. (Duke, 1970); William W. Stead, M.D. (Duke, 1973); Leonard A. Zwelling, M.D. (Duke, 1972).

Interns: R. Christopher Agner, M.D. (Duke, 1974); Louise B. Andrew, M.D. (Duke, 1974); Neil Aronin, M.D. (Pennsylvania, 1974); Robert M. Ball, M.D. (Duke, 1974); Edward J. Brand, M.D. (Pittsburgh, 1974); Melvin C. Chen, M.D. (Howard, 1974); Herbert W. Clegg, III, M.D. (Duke, 1974); G. Ralph Corey, M.D. (Baylor, 1973); Jeffrey Crawford, M.D. (Ohio, 1974); George S. Eisenbarth, M.D. (Duke, 1974); David G. Harrison, M.D. (Oklahoma, 1974); Bertram D. Kaplan, M.D. (Jefferson, 1974); James F. Keel, M.D. (Duke, 1974); Thomas G. Kenamond, M.D. (West Virginia, 1974); Kieran J. Key, M.D. (Tennessee, 1973); Mark Leshin, M.D. (Washington, 1974); Robert M. Lester, M.D. (Duke, 1973); Stephen C. Lloyd, M.D. (Duke, 1974); Michele Marlow, M.D. (Duke, 1974); Gale McCarty, M.D. (Duke, 1974); William H. McClanahan, M.D. (Vanderbilt, 1974); Jane L. McDowell, M.D. (Indiana, 1974); John W. McKeown, M.D. (Tennessee, 1973); J. Frederick McNeer, M.D. (Duke, 1972); Michael D. Miller, M.D. (Duke, 1974); Stuart A. Packer, M.D. (New York, Downstate Med. Center, 1974); Thomas E. Parker, M.D. (Ohio, 1974); Harry R. Phillips, III, M.D. (Duke, 1974); Marlene K. Plevick, M.D. (Med. Coll. Pennsylvania); William M. Poston, M.D. (Duke, 1974); Charles M. Rhodes, M.D. (Cornell, 1974); David M. Rosenberg, M.D. (Western Reserve, 1974); Donald E. Schmechel, M.D. (Harvard, 1974); Robert D. Stewart, M.D. (West Virginia, 1974); Judith L. Swain, M.D. (California at San Diego, 1974); Victoria L. Szatalowicz, M.D. (Oklahoma, 1974); Charlotte A. Thompson, M.D. (Duke, 1973); David H. Troxler, M.D. (Duke, 1974); Eddie M. Williams, M.D. (Duke, 1974); Peter W. Wilson, M.D. (Texas at San Antonio, 1974); James E. Wortman, M.D. (Northwestern, 1974); Richard A. Wright, M.D. (Pittsburgh, 1974).

Fellows: Wayne Alexander, M.D. (Duke, 1969); Richard R. Almon, Ph.D. (Illinois, 1971); Clarence W. Applegate, M.D. (Harvard, 1970); Horacio J. Argeles, M.D. (Rosario, Argentina, 1968); Ronald Aronson, M.D. (Florida, 1969); John T. Baker, M.D. (Harvard, 1971); Edward Baptist, Ph.D. (Massachusetts Inst. of Tech., 1973); William R. Berry, M.D. (Duke, 1973); Charles F. Bethea, M.D. (Oklahoma, 1971); James Boyle, M.D. (Rochester, 1969); Harvey K. Bucholtz, M.D. (New York, Upstate Med. Center, 1968); Warner M. Burch, M.D. (Bowman Gray, 1971); Allan Butterfield. Ph.D. (Duke, 1974); Joseph R. Calder, Jr., M.D. (Pennsylvania, 1970); David S. Caldwell, M.D. (Bowman Gray, 1971); Enrico M. Camporesi, M.D. (Milano, Italy, 1970); Malcolm W. Cass, Ph.D. (Johns Hopkins, 1971); George Cooper, IV. M.D. (Cornell, 1968); Geoffrey Cope, M.D. (Univ. of Sydney, 1966); Edwin B. Cox, M.D. (Duke, 1971); James Crapo, M.D. (Rochester, 1971); Marc K. Drezner, M.D. (Pittsburgh, 1970); Fortune A. Dugan, M.D. (Louisiana State, 1968); Robert J. Emslie, M.D. (Duke, 1968); Michael Entmacher, M.D. (Duke, 1968); John R. Feussner, M.D. (Vermont, 1973); Dina Fischer, Ph.D. (Indiana, 1974); Clyde D. Ford, M.D. (Utah, 1971); Larry J. Fretto, Ph.D. (California at Los Angeles, 1972); Marcia M. Goldner, Ph.D. (Duke, 1972); Kathryn

Hale, M.D. (Oklahoma, 1972); Melvin L. Haysman, M.D. (Med. Coll. of Georgia, 1971); David A. Hester, M.D. (Oklahoma, 1973); Harold Horwitz, M.D. (Tufts, 1968); William L. Hunter, Jr., M.D. (Emory, 1969); Benjamin Johnson, M.D. (Texas, 1970); Michael L. Johnson, M.D. (Colorado, 1972); Steven S. Juk, Jr., M.D. (Duke, 1971); Eugenie Kleinerman, M.D. (Duke, 1974); Joel Kovarsky, M.D. (Iowa, 1972); Roger Kurlander, M.D. (Chicago, 1971); Lee Limbird, Ph.D. (North Carolina, 1973); Clifford Lober, M.D. (Duke, 1974); James Mabry, M.D. (Vanderbilt, 1970); John H. Machledt, Jr., M.D. (Johns Hopkins, 1968); William H. Matthews, Ph.D. (Duke, 1972); Frank A. McGrew, M.D. (Case Western Reserve, 1970); William F. McGuffin, Jr., M.D. (Duke, 1970); James McNamara, M.D. (Michigan, 1968); John F. Metcalf, M.D. (Northwestern, 1969); Brant S. Mittler, M.D. (Duke, 1971); Douglas F. Newton, M.D. (Syracuse, 1968); William P. Nixon, M.D. (Virginia, 1968); William Oelrich, M.D. (Duke, 1972); Lawrence S. Peters, M.D. (New York, 1972); James W. Plonk, M.D. (Duke, 1968); Edward Pritchett, M.D. (Ohio, 1971); John R. Rice, M.D. (Miami, 1968); Frank Rivas, M.D. (Central Univ., Venezuela, 1964); James K. Roche, M.D. (Pennsylvania, 1969); Stanley G. Rockson, M.D. (Duke, 1974); Mary C. Rose, Ph.D. (Case Western Reserve, 1970); Saura C. Sahu, Ph.D. (Pittsburgh, 1971); Daniel J. Sexton, M.D. (Northwestern, 1971); Geoffrey Sherwood, M.D. (Duke, 1968); Peter Smith, Ph.D. (Tennessee, 1973); Henry W. Spencer, Ph.D. (North Dakota, 1974); John W. Starr, M.D. (Duke, 1972); Charles Stuart, M.D. (New York at Albany, 1971); Robert H. Svenson, M.D. (Chicago, 1969); Mary Ellen Switzer, Ph.D. (Illinois, 1973); Andrew Tonkin, M.D. (Melbourne, 1967); Stephen Turner, Ph.D. (Duke, 1971); Martin B. Van Der Weyden, M.D. (Sydney, 1966); Robert A. Warner, M.D. (New York, Upstate Med. Center, 1969); Robert K. Webb, M.D. (West Virginia, 1967); Robert L. Wesley, Ph.D. (Duke, 1974); Robert T. Witty, M.D. (Miami, 1972); Philip B. Woodhall, M.D. (Duke, 1972).

DIVISION OF NEUROLOGY

Chief Resident: Alan Marc Nadel, M.D. (Pittsburgh, 1968).

Residents: Stanton B. Elias, M.D. (Pittsburgh, 1972); S. Mitchell Freedman, M.D. (Pennsylvania, 1972); Geoffrey B. Hartwig, M.D. (Duke, 1972); Anthony Jackson, M.D. (Yale, 1972); James M. Love, M.D. (Duke, 1972); Charles McClure, M.D. (Duke, 1972); Patricia Moore, M.D. (Med. Coll. of Pennsylvania, 1973); Warren Strittmatter, M.D. (Duke, 1973); Theodore Sunder, M.D. (Jefferson, 1972).

DIVISION OF DERMATOLOGY

Chief Resident: William E. Tate, M.D. (Med. Coll. of South Carolina, 1970).

Residents: Edgar D. Allen, M.D. (Utah, 1972); Mary Greist, M.D. (Indiana, 1973); Stanley Levy, M.D. (Georgetown, 1971); Wilbur R. Reschly, M.D. (Iowa, 1971); William H. Turner, III, M.D. (Virginia, 1968); John R. Vydareny, M.D. (Michigan, 1968).

Family Practice

Chief Residents: E. Bruce Elliston, M.D. (Loma Linda, 1972); Ann Moore, M.D. (Missouri, 1972).

Residents: Arthur Travis Abbott, M.D. (Harvard, 1971); Christina S. de la Torre, M.D. (Buenos Aires State, Argentina, 1972); Victor Alberto Diaz-Avvocato, M.D. (Universidad de Nuevo Leon, Mexico, 1972); Philip Trafton Drew, M.D. (Albany, 1974); Eugene Roland Ford, M.D. (Meharry, 1974); Timothy W. Greist, M.D. (Indiana, 1973); Mary Catherine Hilton, M.D. (Maryland, 1974); Richard Grant Joslin, M.D. (Virginia, 1974); Christopher Lyon Krogh, M.D. (Wisconsin, 1974); Gary W. Lamphere, M.D. (Rochester, 1971); William M. Schmitt, M.D. (Loyola, 1970); Stephen B. Thacker, M.D. (Mount Sinai, 1973); Walter Robert Tucker, M.D. (North Carolina, 1974); Gregory V. Volovieff, M.D. (Duke, 1973).

Obstetrics and Gynecology

Chief Residents: Steven R. Fore, M.D. (Bowman Gray, 1968); Michael D. Fried, M.D. (New York, 1971); Samuel J. Gilmore, M.D. (Indiana, 1968); John A. Rock, M.D. (Louisiana State, 1972); Bruce Romig, M.D. (George Washington, 1971).

Assistant Residents: John H. Dorminy, III, M.D. (Duke, 1974); John M. Gilkey, Jr., M.D. (North Carolina, 1972); James Ewell Graham, M.D. (North Carolina, 1974); Arnold S. Grandis, M.D. (Duke, 1974); Mary G. Hammond, M.D. (Florida, 1974); Arthur F. Haney, M.D. (Arizona Med. Coll., 1972); Peter D. Lawrason, M.D. (Duke, 1973); David E. Miller, M.D. (Duke, 1974); Joseph M. Miller, Jr., M.D. (Duke, 1973); S. Malone Parham, M.D. (North Carolina, 1973); Mona M. Shangold, M.D. (Duke, 1972); Steven M. Scott, M.D. (Indiana, 1974); Robert J. Stillman, M.D. (Georgetown, 1973); Thomas

N. Suciu, M.D. (North Carolina, 1973); Lindian J. Swaim, Jr., M.D. (North Carolina, 1973); Clifton C. Wheeler, M.D. (Duke, 1972); Christopher J. Wilson, M.D. (Baylor Med. Coll., 1973).

Faculty Fellows: Lynn G. Borchert, M.D. (Michigan, 1968); Jarlath Mackenna, M.D. (Univ. Coll., Dublin, 1969); Marcos J. Pupkin, M.D. (Univ. Chile, 1960); John C. Weed, Jr., M.D. (Tulane, 1968); R. Herbert Wiebe, M.D. (Saskatchewan, 1962).

Ophthalmology

Chief Residents on rotating basis.

Residents: Paul R. Yoder, Jr., M.D. (Virginia, 1967); Peter M. Holland, M.D. (New York Med. Coll., 1969); Nelson B. Dobbs, Jr., M.D. (Med. Coll. of Georgia, 1968).

Assistant Residents: Charles L. Baltimore, Jr., M.D. (Virginia, 1969); Robert P. Belihar, M.D. (Utah. 1969); Michael Bradbury, M.D. (Georgetown, 1973); L.F. Cashwell, Jr., M.D. (North Carolina, 1972); Winston T. Cope (Florida, 1972); Gary N. Foulks, M.D. (Columbia, 1970); H. Randolph Frank, M.D. (Alabama, 1969); J. Richard Marion, III, M.D. (Duke, 1973); Harold E. Shaw, M.D. (Med. Univ. of South Carolina, 1973); Randall J. Williams, M.D. (Duke, 1968).

Pathology

Residents: C. Bruce Alexander, M.D. (Virginia, 1971); John A. Blackmon, M.D. (Alabama, 1974); James Boylston, M.D. (Duke, 1969); Steven J. Bredehoeft, M.D. (Kansas, 1973); Robert D. Farnham, M.D. (Pennsylvania, 1973); Stephen A. Goscin, M.D. (Duke, 1974), Ph.D. (Duke, 1973); John Grauerholz, M.D. (Duke, 1973); Raymond D. Ideker, M.D. (Tennessee, 1974), Ph.D. (Tennessee, 1972); Salvatore V. Pizzo, M.D. (Duke, 1972), Ph.D. (Duke, 1973); Paul Sides, M.D. (Duke, 1974), Ph.D. (Duke, 1974); Ronald Slaughter, M.D. (Chicago, 1967).

Fellows: Dana Copeland, M.D. (Duke, 1972); Bernard Poeschel, M.D. (Duke, 1975); Ph.D. (Duke, 1974); Sandra Preissig, M.D. (Tennessee, 1971); Jared Schwartz, M.D. (Duke, 1973).

Interns: Elizabeth Kamenar, M.D. (Ohio State, 1975); Richard Zaino, M.D. (Duke, 1975).

Pediatrics

Third Year Residents and Resident-Fellows: Jane E. Brazy, M.D. (Washington Univ., 1972); Roberta S. Gray, M.D. (North Carolina, 1972); Martin Kaplan, M.D. (New York, 1972); Paul Reinstein, M.D. (New York, 1972); Edward Smith, M.D. (Ohio State, 1972); Theodore Sunder, M.D. (Jefferson, 1972); Thomas Tetzlaff, M.D. (Northwestern, 1972); Allen Walker, M.D. (Connecticut, 1972).

Second Year Residents: Richard Carroll, M.D. (Albany, 1973); Robert D. Chessin, M.D. (Johns Hopkins, 1973); Dennis Clements, M.D. (Rochester, 1973); David Coulter, M.D. (Yale, 1973); Kenneth Dunnigan, M.D. (California at San Diego, 1973); L. Matthew Frank, M.D. (Connecticut, 1973); David Fuller, M.D. (Washington Univ., 1973); Thomas A. Glassman, M.D., Ph.D. (Western Reserve, 1973); Boyette Hunter, M.D. (Alabama, 1973); Lee Leserman, M.D., Ph.D. (Pritzker, 1973); C. Michael Reing, M.D. (Georgetown, 1973); Spencer Weig, M.D. (Mt. Sinai, 1973).

First Year Residents: Richard David, M.D. (Duke, 1974); W. LaDell Douglas, M.D. (Georgetown, 1974); Arthur Garson, Jr., M.D. (Duke, 1974); Ronald W. Joyner, M.D., Ph.D. (Duke, 1974); Phyllis C. Leppert, M.D. (Duke, 1974); Michael B. Meyer, M.D. (Emory, 1974); Jonathan Moss, M.D., Ph.D. (Duke, 1974); Denise M. Nagel, M.D. (Dartmouth, 1974); William F. Terry, M.D. (Columbia, 1974); Paul H. Volkman, M.D., Ph.D. (Pritzker, 1974); Beverly Wittkopp, M.D. (Wisconsin, 1971).

Fellows: Gerald Ahronheim, M.D. (Michigan, 1966); David Benjamins, M.D. (Wayne State, 1963); D. Woodrow Benson, M.D., Ph.D. (Duke, 1972); Ann Cantor, M.D. (California at San Francisco, 1971); Rosalind Coleman, M.D. (Western Reserve, 1969); Robert O. Harris, III, M.D. (Tulane, 1945); Mark Horton, M.D. (St. Louis Univ., 1972); Ziad Idriss, M.D. (Amer. Univ. of Beirut, 1970); William Maurer, M.D. (Ohio State, 1966); Dennis Ownby, M.D. (Med. Coll. Ohio, 1972); S. Ozden Sanal, M.D. (Ankara, Turkey, 1968); Gerald Serwer, M.D. (Duke, 1971); Michael Sisk, M.D. (Bowman Gray, 1967); James D. Thullen, D.O. (Des Moines, 1970); Richard Weaver, M.D. (Florida, 1968); John K. Whisnant, M.D. (Bowman Gray, 1968); Susan Wolschina, M.D. (New York, 1970).

Psychiatry

Chief Resident: Steven G. Potkin, M.D. (Washington Univ., 1971).

Residents: Albert R. Alden, M.D. (Texas Med. School at San Antonio, 1972); Robert H. Belmaker, M.D. (Duke, 1971); Lesley K. Braasch, M.D. (New York, Downstate Med. Center, 1970); Robert S. Benson, M.D. (Emory, 1968); Nancy T. Butts, M.D. (Duke, 1972); Sam Castellani, M.D. (Wayne State, 1969); Allen R. Dyer, M.D. (Duke, 1972); Gene S. Gordon, M.D. (Duke, 1972); James C. Hoover, M.D. (Iowa, 1966); Paul D. Meier, M.D. (Arkansas, 1972); William M. Petrie, M.D. (Vanderbilt, 1972); Ernest A. Raba, M.D. (Texas Med. School at San Antonio, 1972); W. James Ryan, M.D. (Louisiana State Univ. Med. School, 1972); Thomas N. Stephenson, M.D. (Michigan, 1972).

Assistant Residents: Dan G. Blazer, II, M.D. (Tennessee, 1970); Ivy B. Boyle, M.D. (Rochester School of Med., 1968); Ernest R. Braasch, M.D. (New York, Downstate Med. Center, 1970); Ingrid J. Brantley, M.D. (Duke, 1973); William L. Clapp, M.D. (New Mexico, 1969); Thomas P. Cornwall, M.D. (Northwestern, 1970); Glenn C. Davis, M.D. (Duke, 1972); Randal D. France, M.D. (Texas Med. Branch at Galveston, 1973); Bruce D. Gutnik, M.D. (Missouri, 1972); Lee H. Haller, M.D. (Michigan, 1972); Michael A. Kalm, M.D. (New York, Downstate Med. Center, 1970); David B. Larson, M.D. (Temple Med. School, 1973); Bennett L. Leventhal, M.D. (Louisiana State Univ. School of Med., 1974); Frank B. Miller, M.D. (Michigan, 1974); Robert D. Miller, M.D. (Duke, 1973); Ronald M. Podell, M.D. (Mt. Sinai School of Med., 1971); Daphne A. Rosenblitt, M.D. (Duke, 1973); Donald L. Rosenblitt, M.D. (Duke, 1973); James C. Sikes, M.D. (Med. Coll. of Georgia, 1971); Jean G. Spaulding, M.D. (Duke, 1972); Joseph M. Strayhorn, Jr., M.D. (Northwestern, 1974); Ronald J. Taska, M.D. (Baylor Coll. of Med., 1973); Ervin M. Thompson, Jr., M.D. (Vanderbilt, 1972); Jeffrey Tulin-Silver, M.D. (Boston Univ., 1972); William W. Weddington, Jr., M.D. (Emory, 1970); Stephen J. Weiler, M.D. (Ohio State, 1973); James R. Weiss, M.D. (Louisiana State Univ. School of Med., 1973); George F. Wittkopp, M.D. (Wisconsin, 1970).

Fellows: Suha A. Beller, M.D. (Istanbull Univ. Med. Faculty, 1968); Sabri B. Rejab, M.D. (Univ. of Singapore, 1964).

Radiology

Chief Resident: William M. Thompson, M.D. (Pennsylvania, 1969).

Residents: Henry Alperin, M.D. (Med. Coll. of Virginia, 1968); Collins Baber, M.D. (Duke, 1973); Kenneth Bird, M.D. (Temple, 1968); Brent Brandon, M.D. (Georgetown, 1973); Joel Carter, M.D. (Tennessee, 1973); William M. Clark, M.D. (Harvard, 1971); Howard Cockrill, Jr., M.D. (Arkansas, 1968); Larry Crane, M.D. (Baylor, 1968); Kelly T. Drake, M.D. (Emory, 1973); Denise Duff, M.D. (Vermont, 1974); Saleh Fetouh, M.D., Ph.D. (North Carolina, 1972); William L. Foster, Jr., M.D. (Duke, 1973); Parham Fox, M.D. (Med. Coll. of Virginia, 1970); Gary W. Hinzman, M.D. (Pittsburgh, 1966); Thomas M. Jamison, M.D. (Indiana, 1972); Michael Johnson, M.D. (Colorado, 1972); Dan Kramer, M.D. (Virginia, 1970); Richard H. Laib, M.D. (Cincinnati, 1971); Joseph P. Miller, M.D. (Duke, 1970); Arl Van Moore, M.D. (Arkansas, 1974); Carlisle L. Morgan, M.D. (Miami, 1972); Michael Moses, M.D. (Emory, 1970); Patrick Moulton, M.D. (Tennessee, 1968); K. Thomas Noell, M.D. (Rochester, 1967); Terrence Oddson, M.D. (South West Texas, 1969); Robert Ornitz, M.D. (Oklahoma, 1971); Randall Preissig, M.D. (Tennessee, 1971); Mitchell S. Reese, M.D. (Emory, 1972); Ronald A. Sapiente, M.D. (St. Louis, 1974); Robert Scruggs, M.D. (Tennessee, 1969); Dale R. Shaw, M.D. (Duke, 1973); Richard R. Six, M.D. (West Virginia, 1968); David L. Sommerville, M.D. (Pennsylvania, 1968); Grady C. Stewart, Jr., M.D. (Alabama, 1973); Daniel E. Stump, M.D. (Ohio State, 1969); Michael D. Weaver, M.D. (Tennessee, 1968); Donald B. Williams, M.D. (Alabama, 1969).

Surgery

DIVISION OF GENERAL AND THORACIC SURGERY

Instructors and Teaching Scholars: Thomas M. Daniel, M.D. (Virginia, 1964); Robert H. Jones, M.D. (Johns Hopkins, 1965).

Instructors and Chief Residents: Fred A. Crawford, Jr., M.D. (Duke, 1967); M. Wayne Flye, M.D. (North Carolina, 1967).

Fellows: William R. Beltz, M.D. (Illinois, 1970); Ralph R. Bollinger, M.D. (Tulane Med. School,

1970); John P. Grant, M.D. (Chicago, 1969); John W. Hammon, Jr., M.D. (Tulane, 1968); Walter D. Holder, Jr., M.D. (North Carolina, 1970); Stephen A. Mills, M.D. (McGill, 1961); James S. Rankin, M.D. (Tennessee, 1969); David K. Wellman, M.D. (Duke, 1972); Andre Duranceau, M.D. (Univ. of de Montreal, 1967); Joel B. Clements, M.D. (Tennessee, 1968).

Senior Assistant Residents: Robert P. Barnes, M.D. (Duke, 1971); Jimmy L. Cox, M.D. (Tennessee, 1967); William C. DeVries, M.D. (Utah, 1970); Allan M. Gottlieb, M.D. (Indiana, 1971); Lynn H. Harrison, Jr., M.D. (Oklahoma, 1970); Kent W. Jones, M.D. (Utah, 1969); Leonard H. Kleinman, M.D. (New York, 1970); Thomas C. Militano, M.D. (Case Western Reserve, 1970); Roger C. Millar, M.D. (Utah, 1969); Richard A. Perryman, M.D. (St. Mary's Hospital Med. School, 1967); Lewis H. Stocks, III, M.D. (Marquette, 1971).

Assistant Residents: Ronald M. Barton, M.D. (Kansas, 1973); James W. Battaglini, M.D. (Rochester, 1973); Ralph M. Bolman, III, M.D. (St. Louis, 1973); Martin J. Conley, M.D. (Duke, 1972); Charles H. Edwards, II, M.D. (North Carolina, 1973); William B. Fisher, M.D. (Duke, 1974); William P. Garth, Jr., M.D. (Tulane, 1973); John B. Hanks, M.D. (Rochester, 1973); William T. Hardaker, Jr., M.D. (Duke, 1973); David N. Herndon, M.D. (Case Western Reserve, 1973); Thomas J. Limbird, M.D. (Duke, 1973); James E. Lowe, M.D. (California at Los Angeles, 1973); Thomas H. Marsicano, M.D. (Ohio State, 1973); Jon F. Moran, M.D. (Washington, 1973); Jeffrey A. Norton, M.D. (New York, Upstate Med. Center, 1973); Harvey I. Pass, M.D. (Duke, 1972); Elston Seal, Jr., M.D. (Med. Coll. of Virginia, 1972); Thomas L. Spray, M.D. (Duke, 1973).

First Year Residents: Erle H. Austin, III, M.D. (Harvard, 1974); Richard F. Black, M.D. (Utah, 1974); Joseph B. Boyd, M.D. (Miami 1974); Charles B. Brendler, M.D. (Virginia, 1974); Alfred E. Chang, M.D. (Harvard, 1974); Walter R. Chitwood, Jr., M.D. (Virginia, 1974); Arthur J. Crumbley, III, M.D. (Washington, 1974); Isabelle R. Faeder, M.D. (Duke, 1974); Allan H. Friedman, M.D. (Illinois, 1974); Richard D. Goldner, M.D. (Duke, 1974); Ronald C. Hill, M.D. (West Virginia, 1974); Richard A. Hopkins, M.D. (Duke, 1974); Donald N. Kapsch, M.D. (Duke, 1974); Louis A. Koman, M.D. (Duke, 1974); Richard M. Larson, M.D. (Duke, 1974); William M. Linehan, M.D. (Oklahoma, 1974); Richard L. McCann, M.D. (Cornell, 1974); Stephen K. Rerych, M.D. (Columbia, 1974); Worthington G. Schenk, M.D. (Duke, 1974); Peter M. Scholz, M.D. (Basel, 1974).

DIVISION OF NEUROSURGERY

Instructors and Chief Residents: Stephen C. Robinson, M.D. (Duke, 1967); Robert F. Wilfong, M.D. (Duke, 1967).

Fellows: Charles C. Duncan, Jr., M.D. (Duke, 1972); James Fulghum, III, M.D. (North Carolina, 1971).

Assistant Residents: John R. Leonard, III, M.D. (North Carolina, 1970); Walter J. Oakes, M.D. (Duke, 1972); Roger H. Ostdahl, M.D. (Duke, 1973); Ronald E. Woosley, M.D. (Kentucky, 1968); David S. Zorub, M.D. (Tulane, 1970).

DIVISION OF ORAL SURGERY

Instructor and Chief Resident: Ryland T. Traynham, M.D. (Med. Coll. of Virginia, 1968).

Assistant Residents: Dewey G. Carter, M.D. (North Carolina, 1968); John M. Kroe, M.D. (Maryland, 1971).

DIVISION OF ORTHOPAEDIC SURGERY

Instructors and Chief Residents: Armando Bendana, M.D. (San Carlos, 1969); Donald S. Bright, M.D. (Maryland, 1967); William A. Carr, M.D. (Duke, 1966); J. Ollie Edmunds, M.D. (Florida, 1967); Mark S. Feierstein, M.D. (New York, Downstate Med. Center, 1969); Lamar L. Fleming, M.D. (Georgia, 1965); Philip K. Keats, M.D. (Duke, 1969); Mitchel C. Newman, M.D. (Louisville, 1968); Jan Stasikowski, M.D. (Duke, 1968); Garron G. Weiker, M.D. (Michigan, 1966).

Assistant Residents: Robert S. Adelaar, M.D. (Pennsylvania, 1970); John Beck, M.D. (Pittsburg, 1970); Edwin Cooper, M.D. (Duke, 1966); James David Dalton, M.D. (Duke, 1971); Andre Egelesky, Jr., M.D. (Tufts, 1967); William G. Goodman, M.D. (Duke, 1972); Frank B. Gray, M.D. (North Carolina, 1969); David P. Hughes, M.D. (Jefferson, 1972); Forney Hutchinson, M.D. (Duke, 1968); John Kurtis, M.D. (Einstein, 1972); Thomas Loeb, M.D. (Louisville, 1972); John D. Lucey, M.D. (Hahnemann, 1970); Moheb Moneim, M.D. (Cairo, 1963); William G. Moorefield, M.D. (Duke, 1969); Thomas P. Nipper, M.D. (Loyola-Stritch, 1971); Gary Poehling, M.D. (Marquette, 1968); John Rendall, III, M.D. (Duke, 1972); Robert J. Ruderman, M.D. (Rochester, 1968); James R. Schwartz, M.D. (Johns Hopkins, 1971); John W. Shaffer, M.D. (Maryland, 1969); Robert E. Stein, M.D. (New York, Downstate Med. Center, 1967); Alex Verhoogen, M.D. (California at Irvine, 1968); Lee

Whitehurst, M.D. (North Carolina, 1972); Kenneth E. Wood, M.D. (Florida, 1970); Charles V. Taft, M.D. (Duke, 1968).

Fellow: John Gould, M.D. (Coll. of Med., Vermont, 1964).

DIVISION OF OTOLARYNGOLOGY

Instructors and Chief Residents: Frank R. Warder, M.D. (South Carolina, 1968); Lynn Allen Hughes, M.D. (Oklahoma, 1968); Randolf R. Smith, M.D. (Georgia, 1970).

Assistant Residents: Kenneth A. Johnson, M.D. (Iowa, 1969); Willard Thompson, M.D. (Med. Coll. of Virginia, 1969); Peter G. Chikes, M.D. (North Carolina, 1972); Randall G. Michel, M.D. (Duke, 1971); Robert W. Wilson, M.D. (Med. Univ. of South Carolina, 1972).

DIVISION OF PLASTIC AND MAXILLOFACIAL SURGERY

Instructors and Chief Residents: Henry W. Neale, M.D. (Med. Coll. of Virginia, 1964); Calvin Peters, M.D. (Louisiana State, 1964); Philip G. Prioleau, M.D. (South Carolina, 1967).

Assistant Residents: William Hyland, M.D. (Boston, 1966); C. Lynwood Puckett, M.D. (Bowman Gray, 1966); Verne Lanier, M.D. (Vanderbilt, 1966); David Smith, M.D. (Duke, 1966); Alfreda Villarreal, M.D. (de Nuevo Leon, Mexico, 1965).

DIVISION OF UROLOGIC SURGERY

Instructors and Chief Residents: Nicholas M. Bath, M.D. (Duke, 1967); David L. Dalton, M.D. (Tennessee, 1969); H. Sykes DeHart, M.D. (Duke, 1967); Samuel P. Hawes, III, M.D. (Vanderbilt, 1967); Edward M. Mullin, M.D. (Columbia Coll. of Physicians and Surgeons, New York, 1968); Lloyd J. Peterson, M.D. (Northwestern, 1968); Peter S. Stevens, M.D. (Emory, 1967).

Fellow: Richard D. Kane, M.D. (Northwestern, 1971).

Assistant Residents: George D. Case, M.D. (Northwestern, 1969); George P. Hemstreet, III, M.D. (Hahnemann, 1968); Charles M. Lindsey, M.D. (Tulane, 1968); Jorge L. Lockhart, M.D. (Faculty of Montevideo, Uruguay, 1973); Jeff Wacksman, M.D. (Cincinnati, 1970); Arnold M. Singer, M.D. (Melbourne, 1967); George D. Webster, M.D. (Univ. Coll. of Rodeskin, 1968); Ralph de Vere White, M.D. (Univ. Coll., Dublin, Ireland, 1970).



ROSTER OF STUDENTS

Class of 1978

Alpert, Steven Edward (Massachusetts Inst. of Tech.), Durham, North Carolina

Alyono, David (Emory), Jakarta, Indonesia

Apple, Jerry Stewart (Duke), Wallace, North Carolina

Avent, James Monroe (Duke), Norristown, Pennsylvania

Bailey, Genie Lark (Meredith), Kenly, North Carolina

Bandy, Lawrence Curtis (Stetson), Orlando, Florida

Beardsley, Thomas L. (Duke), Ridgefield, Connecticut

Bell, William R., Jr. (Rice), Pensacola, Florida

Bencze, Robert F. (Duke), Cranbury, New Jersey

Bible, Henry Harold (Williams), St. Louis, Missouri

Blair, Vilray Pipan, III (Harvard), St. Louis, Missouri

Bobbitt, William Haywood, III (North Carolina at Chapel Hill) Charlotte, North Carolina

Boekelheide, Kim (Harvard), Chapel Hill, North Carolina

Booth, Daniel Hughston (Wake Forest), Hendersonville, North Carolina

Bowman, Zebulon Lynn (Duke), Burlington, North Carolina

Bredesen, Dale Eric (California Inst. of Tech.), Ft. Lauderdale, Florida

Bressler, Garrett Schell (Davidson), Durham, North Carolina

Buesing, Mary Ann (Marquette), Leavenworth, Kansas

Buff, Samuel Joseph (State), Alexis, North Carolina

Bull, Jonca Camille (Princeton), Spartanburg, South Carolina

Bunn, William B., III (Duke), Raleigh, North Carolina

Butera, Philip Joseph (Duke), Brooklyn, New York

Califf, Robert McKinnon (Duke), Columbia, South Carolina

Carey, Benjamin Arthur (North Carolina at Chapel Hill), Kinston, North Carolina

Clarke, William Robert (Duke), Cincinnati, Ohio

Cline, William Tucker (Davidson), Waynesville, North Carolina

Conner, Patrick Robert (Johns Hopkins), Burlington, North Carolina

Cooper, John A.D., Jr. (Northwestern), Arlington, Virginia

Cooper, Virginia Claire (Tulane), Athens, Georgia

Culp, John Rockwell (Davidson), Mooresville, North Carolina

DeCarlo, Phyllis Anne (Duke), Arlington, Virginia

Dunlap, George Hilliard (Harvard), Winston-Salem, North Carolina

Dunn, Thaddeus Leland (Duke), Savannah, Georgia

Edmundson, Marsha Overman (North Carolina at Greensboro), Wilson, North Carolina

Erickson, Douglas Joseph (Duke), Durham, North Carolina

Ferguson, Elaine Reginia (Brown), Highland Park, Michigan Freiberger, Harley Hay (Univ. of Florida), Gastonia, North Carolina

Geballe, Adam Philip (Stanford), Woodside, California

Gibson, William G. H. (Williams), Ithaca, New York

Ginsburg, David (Yale), Union, New Jersey

Gnann, John Wyatt, Jr. (Davidson), Savannah, Georgia

Goldberg, Joel Steven (Duke), Linden, New Jersey

Golden, Marc Lee (Franklin & Marshall), Pennsauken, New Jersey

Gorman, Michael Robert (Duke), Bay Village, Ohio

Graham, John Douglas (Wabash), Indianapolis, Indiana

Griffin, Eugene Wilson, III (Denison), Aurora, Ohio

Groeneveld, Jodelle Sue (Michigan State), Owosso, Michigan

Hamp, Melissa (Duke), Grand Rapids, Michigan

Hanson, Jeffrey Becker (Dartmouth), Geneva, Illinois

Harden, Elizabeth Ann (South Carolina), Manning, South Carolina

Hassett, Margaret Alycia (Duke), Wyomissing, Pennsylvania

Hayes, Lynn Renee (Michigan State), Seattle, Washington

Henderson, Joan Sanford (Stanford), Fresno, California

Henderson, Melvin Lee (Brown), Fayetteville, North Carolina

Hodge, Gameel Byron, Jr. (Vanderbilt), Spartanburg, South Carolina

Hoffman, Robert Miles (Yale), Hillsdale, New Jersey

Hough, Linda Vance (Coll. of Charleston), Kershaw, South Carolina

Isley, Joseph Plonk (North Carolina at Chapel Hill), Burlington, North Carolina

Jackson, Marianne (Duke), Concord, Massachusetts

Johnson, Robert Bruce (Duke), Ontario, Canada

Johnson, Stephen Morgan (Duke), West End, North Carolina

Johnston, Jeffrey Monroe (Davidson), Charlotte, North Carolina *Kardashian, Jane Flora (Rutgers), Clifton, New Jersey Kelley, Susan Lisa (Colgate), Mahopac, New York Li, James Tung-Chieh (Princeton), Jamaica, New York Lieber, Ursula (Geneva), Brooklyn, New York Lightner, Virginia (Massachusetts Inst. of Tech.), Santurce, Puerto Rico Lindsey, Peggy Susan (Duke), Washington, Georgia Lutin, Charles David (Vanderbilt), Nashville, Tennessee Mabry, Mack Harrison (Davidson), Norwood, North Carolina Mains, Charles William (Univ. of Tennessee), Marietta, Georgia Mattil, Christopher Lee (Duke), Bryan, Texas McClees, Eric Carr (North Carolina State), Durham, North Carolina McIntosh, Donald Munvo (North Carolina at Chapel Hill), Marion, North Carolina Morris, David Clarence (Duke), Arapahoe, North Carolina Myers, Beverly Jane (Wake Forest), Winston-Salem, North Carolina Newman, Kurt Douglas (North Carolina at Chapel Hill), Raleigh, North Carolina Newman, William Neal (Princeton), Clinton, North Carolina Nielsen, Anton Peter (Duke), Venice, Florida O'Brien, Lauren Irene (Univ. of Pennsylvania), Swarthmore, Pennsylvania Plummer, Charles Wyane (Haverford), Durham, North Carolina *Post, Nancy (Univ. of Michigan), New York, New York Preston, Marion Mason (Yale), Lake Forest, Illinois Rickard, Randall Craig (Duke), Spartanburg, South Carolina Roark, Steven Forest (Duke), Wallingford, Pennsylvania Robb, Linda Celeste (Radcliffe), Albuquerque, New Mexico Roberts, Alfred Mack (North Carolina State), Durham, North Carolina Rothenberg, Molly Anne (Yale), Denver, Colorado Runge, Pamela Margaret (Stanford), Austin, Texas Sahmel, Reinhardt Otto (Princeton), Staten Island, New York Savona, Steven Robert (Duke), Bayside, New York Schmidt, Emmett Vance (Harvard), Elmsford, New York Sedwick, Lyn Alice (Princeton). Maitland, Florida Sexton, Carlton Clark (Stanford), Stevenson, Maryland Shannon, Michael Wayne (Washington), St. Louis, Missouri Shelburne, Thomas Maynard (Hampden-Sydney), Raleigh, North Carolina Shepard, Robert Charles (Harvard), West Hempstead, New York Sherman, Douglas Paul (Duke), Winter Park, Florida Shimm, David Stuart (Harvard), Durham, North Carolina Simmons, Roberdeau D. (Duke), Alloway, New Jersey Sims, Peter Jay (Amherst), New Rochelle, New York Smiley, Margaret Lynn (Kansas), Goodland, Kansas Stern, Matthew Bruce (Harvard), West Newton, Massachusetts Stockbridge, Norman Lander (North Carolina), Durham, North Carolina Suslavich, Frank John, Jr. (Bowdoin), Darien, Connecticut Swingle, Hanes M. (Vanderbilt), Johnson City, Tennessee Taylor, Terry (Smith), Santa Cruz, California Tiedeman, James Stuart (Drake), Des Moines, Iowa Tiller, Wendell Howard, Jr. (Wake Forest), Spartanburg, South Carolina Toye, Catherine Helene (Union), Rhinebeck, New York Tyson, George S., Jr. (Francis Marion), Florence, South Carolina Vogel, Joseph Vincent (Duke), Durham, North Carolina Wank, Stephen Arnold (Duke), Great Neck, New York Williams, Kenneth Dean (Davidson), Liberty, South Carolina Wood, Catherine Louise (Macalester), Rochester, Minnesota Wood, John Charles (Duke), Richmond, Virginia Wright, Eugene Edward (Princeton), Durham, North Carolina

Class of 1977

Adams, Beverly Jean S. (Cincinnati), Durham, North Carolina Adams, Susan Carol (Winthrop), Rock Hill, South Carolina Arthur, Martha Frances (Brown), Reynoldsburg, Ohio Auerbach, Paul Stuart (Duke), North Plainfield, New Jersey

Yoder, Eric Monroe (Maryland) Columbia, South Carolina

^{*}Leave of absence.

Austin, Linda Smith (Duke), Westfield, New Jersey Austin, Robert Marshall (Lafayette), Westfield, New Jersey Bailey, Kathleen Marjorie (Duke), Washington, D. C. Barton, Thomas Karl (Massachusetts Inst. of Tech.), St. Petersburg Beach, Florida Berger, Jerry Jay (State Univ. of N. Y. at Buffalo), New York, New York Bernstein, Barry Michael (Northwestern), Milwaukee, Wisconsin Bishop, Linda Alice (Yale), So. Dennis, Massachusetts Blacharsh, Jill June (Vassar), West Hempstead, New York Bloomfield, Robert Lee (Dartmouth), Chapel Hill, North Carolina Boeck, Marjorie Ann (Minnesota), Durham, North Carolina Bower, Andrew (Occidental), Rolling Hills Estate, California Brennan, John Thomas, Jr. (Duke), Youngstown, New Jersey Bressler, Robert Burgess (Vanderbilt), Durham, North Carolina Bruce, James Frederick,)r. (Auburn), Opelika, Alabama Buckley, Edward G. (Duke), Durham, North Carolina Cannon, Patricia Ann (Hofstra), New Castle, Delaware Cassano, William Frank (Duke), Chappaqua, New York Clark, Margaret Thom (Smith), Colorado Springs, Colorado Cochi, Stephen Lee (Massachusetts Inst. of Tech.), Rochester, New York Cordingley, Gary Edward (Purdue), Crown Point, Indiana Dackis, Charles Andrew (Duke), Short Hills, New Jersey Drake, Miles Edward (Harvard), Vineland, New Jersey Dunnigan, Ann Christine (California at San Diego), Downey, California Duvic, Madeleine (Rice), New Orleans, Louisiana Dykes, James Russell (Duke), Bartlesville, Oklahoma Eiden, Joseph John (Duke), Wilmington, North Carolina Ely, Ralph Lawrence, III (Davidson), Durham, North Carolina Fox, Gary Norman (Maryland), Bethesda, Maryland Francis, Robert Dean (Duke), Durham, North Carolina Gallemore, Gail Hurd (Emory), Durham, North Carolina Garcia-Saul, Jose Antonio (Univ. of Puerto Rico), Santurce, Puerto Rico Gavin, James Rapheal, III (Livingstone), Mobile, Alabama Gehrett, Joseph Owen, Jr. (Duke), Deer Lodge, Montana Geier, Gail Herman (Smith), White Plains, New York Gilbert, Paul Pressly (North Carolina State), Statesville; North Carolina Hagerty, Richard Curry (Johns Hopkins), Charleston, South Carolina Hainline, Bryan Edward (Georgia Inst. of Tech.), Atlanta, Georgia Hainsworth, Barbara Ellen (Stanford), Los Altos, California Hardy, Henry James (Williams), Cleveland, Ohio Harrington, Madeline Miller (Hawaii), Atlanta, Georgia Harris, Larry Coleman (Yale), Fayetteville, North Carolina Hasson, Newton Earl (Duke), Timonium, Maryland Holt, Lawrence Byerly, Jr. (William & Mary), Winston-Salem, North Carolina Honeycutt, Pamela Jane (Mississippi), Jackson, Tennessee Honickman, Steven P. (State Univ. of N. Y. at Stony Brook), Brooklyn, New York Hooper, Mildred Walker (Radcliffe), Ruxton, Maryland Horton, James Marvin (Duke), New Orleans, Louisiana *Hughes, Claude LeBernian, Jr. (East Carolina), New Bern, North Carolina Joiner, Clinton Hubert (Georgia Inst. of Tech.), Decatur, Georgia Kennedy, John Daniel, Jr. (Duke), Richmond, Virginia Klausner, Cecile Bassen (Yale), Little Neck, New York Klausner, Richard Daniel (Yale), Yonkers, New York Kull, Richard Kevin (Duke), Durham, North Carolina Larrick, James William (Colorado), Englewood, Colorado Leslie, John Bruce (Johns Hopkins), Albuquerque, New Mexico Lewis, Richard Harlow (Guilford), Lake Worth, Florida Ling, David (Princeton), Louisville, Kentucky Lymberis, Marvin Edward (Duke), Charlotte, North Carolina Mackey, William Charles (Amherst), New Canaan, Connecticut Magill, Michael Kevin (Dartmouth), Scottsdale, Arizona Mahony, Cheryl (Pitzer), Fullerton, California Mayer, Thom Alan (Hanover), Anderson, Indiana

McKain, Carey Wilson (Clemson), Taylors, South Carolina

^{*}Leave of absence.

Miller, Gary Michael (North Carolina), Jefferson, North Carolina Millsaps, David McIvers (Duke), Santa Ana, California Moeller, Garland Radford (Princeton), Bedford, Massachusetts Morawetz, Lida Joan (Massachusetts Inst. of Tech.), New York, New York Nichol, Walter Paul (Dartmouth), Durham, North Carolina Ose, Dennis E. (Purdue), Indianapolis, Indiana Ozimek, Carl Dean (U. S. Military Academy), Westfield, New Jersey Pasternak, Lewis Reuven (Johns Hopkins), Hempstead, New York Paulson, Wendy Carol (Bethel), Camp Lejeune, North Carolina Pedley, Carolyn Frances (Duke), Charleston, West Virginia Pollack, Rhonda Beth (Brandeis), Brooklyn, New York Roberts, William Dotson (Allegheny), Glenshaw, Pennsylvania Roloson, Gary James (California at San Diego), San Gabriel, California Rouault, Tracey Ann (Yale), Schenectady, New York Rutledge, John Hunt, II (Southwestern at Memphis), Humboldt, Tennessee Sadler, Jasper Evan, III (Princeton), Huntington, West Virginia Schatz, Richard Alan (State Univ. of N. Y. at Buffalo), Setauket, New York Sellers, Thomas Duncan, Jr. (Colorado), Dillon, Colorado Shoemaker, Ritchie C. (Duke), Carlisle, Pennsylvania Smith, Christopher Edmund (Princeton), Bemus Point, New York Smith, Peter Kent (Princeton), Swansea, Massachusetts Smolko, Milan John (Pennsylvania), Stroudsburg, Pennsylvania Snow, Joseph Robert (Southern Methodist), Abilene, Texas Stanley, Robert Boswell (North Carolina), High Point, North Carolina Stewart, Dannie L. (North Carolina), Cary, North Carolina Stinson, Olivia Diane (North Carolina), Charlotte, North Carolina Symmonds, Jeffrey Boone (Colorado), Rochester, Minnesota Tatum, Arthur Howard (Wisconsin), Harrington, New Jersey Terry, Linda Carole (Florida State), Miami Springs, Florida Thaler, Malcolm Stuart (Amherst), Poughkeepsie, New York Thomassen, Thom Scott (U. S. Military Academy), Tucson, Arizona Ticehurst, John Robert (Brown), Fair Haven, New Jersey Trantham, Joey Lee (Georgia Inst. of Tech.), Marble, North Carolina Trask, Neil Webster, III (Davidson), Burton, South Carolina Trofatter, Kenneth Frank, Jr. (Duke), Bound Brook, New Jersey Unterman, Terry Gene (Princeton), Evanston, Illinois Waldrop, Charles Danny (North Carolina), Columbus, North Carolina Walker, Price, Jr. (California Inst. of Tech.), Columbus, Georgia Walls, Bertram Emanuel (North Carolina A.&T. State), Chadbourn, North Carolina Wilkinson, Sarah Frances (Wellesley), Chapel Hill, North Carolina Williams, John Mark (Duke). South Bend, Indiana Williams, Larry Wayne (North Carolina), Granite Quarry, North Carolina Williams, Roy Jerome (Harvard), St. Louis, Missouri Willis, Henry Stuart Kendall, III (U. S. Air Force Academy), Chapel Hill, North Carolina Woriax, Frank (Duke), Hillsborough, North Carolina Yen, Tien-Sze Benedict (Stanford), Palo Alto, California Yoshinaga, Monica Ann (Holy Names College), Baltimore, Maryland Young, James Allen (Harvard), Topeka, Kansas

Class of 1976

Abernethy, John Lloyd (Duke), Charlotte, North Carolina
Allen, Faith (Rochester), Berkeley Heights, New Jersey
Arentzen, Carl Edward (Princeton), Stratford, New Jersey
Ballard, Evan A. (Dartmouth), Monticello, Georgia
Beaumont, Ralph H. (Duke), Greensboro, North Carolina
Becker, Robert L., Jr. (Miami), Columbus, Ohio
Beekman, Robert H., III (Occidental), Carmichael, California
Berger, Keith (Harvard), Norfolk, Virginia
Bergin, Donald John (U.S. Military Academy), Harvey, Illinois
Bevan, Mark F. (Amherst), Durham, North Carolina
Bilsker, Martin (Massachusetts Inst. of Tech.), Miami, Florida
Blaylock, Barbara Laine (Duke), Winston-Salem, North Carolina
Bolander, Franklyn Francis, Jr. (Armstrong State), Savannah, Georgia
Borowitz, Michael Joseph (Massachusetts Inst. of Tech.), Bronx, New York

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Class of 1975

Adams, Joan Brown (Shaw), Brooklyn, New York Agner, Roy Christopher (Davidson), Salisbury, North Carolina

^{*}Leave of absence.

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Andrew, Louise Briggs (Duke), Durham, North Carolina

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Ball, Robert Morris (Georgia Inst. of Tech.), Dallas, Texas Beauchamp, Charles Oliver, III, (Stanford). Houston, Texas

Becker, Matthew Joseph (Massachusetts Inst. of Tech.), N. Miami Beach, Florida

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Bonner, Ernest Lincoln, Jr. (Duke), Gaffney, South Carolina

Brady, Charles Eldon, Jr. (North Carolina), Robbins, North Carolina

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Cappello, Roger William (Williams), Glens Falls. New York Chambers, John Willis, Jr. (Princeton), Richmond, Virginia

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Clegg, Herbert William, II (Davidson), Cockeysville, Maryland

Clements, Fiona Marshall (St. Bartholomew's), Durham, North Carolina

Davis, Alan Dean (Emory), Knoxville, Tennessee

Donohue, Hugh James, Jr. (U.S. Military Academy), Rockville Centre, New York

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Fields, Richard Alan (Hampton Institute), Greensboro, North Carolina

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Fouts, Anthony Calhoun (Virginia), Atlanta, Georgia

Fries, Louis Frederick, III (Johns Hopkins), Wayne, Pennsylvania

Gober, Henry Fred, Jr. (Duke), Atlanta, Georgia

Goodkind, David Jay (State Univ. of New York at Buffalo), Roslyn, New York

Graham, Suzanne Carol (Cornell), Chapel Hill, North Carolina

Gross, Wendy Elise (Hofstra), N. Bellmore, New York

Grulke, David Carl (Ohio State), Berea, Ohio

Hansen, Dorothy Anne (Wellesley), Philadelphia, Pennsylvania

Harvey, Robert Clinton (U.S. Military Academy), Pebble Beach, California

Hawley, Philip Caldwell (Princeton), Columbus. Ohio

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Jarvis, Stuart Craig (Vanderbilt), Louisville, Kentucky Jobin, Michael John (Harvard), Somerville, New Jersey Johnston, William Elliott (Duke), Jackson, Mississippi

Jones, Roy B. (Duke), Durham, North Carolina

Josephs, Shelby Harold (Pennsylvania), Baltimore, Maryland

Kahn, Robert Ira (Cornell), Newburgh, New York

Kehne, Barbara Joanne (Mount Holyoke), Hagerstown, Maryland

Kessler, Allen Reif, II (Davidson). Jeffersontown, Kentucky

Khoury, Christopher Paul (Yale), Oklahoma City, Oklahoma

Kleinerman, Eugenie Sue (Washington), Shaker Heights, Ohio

Lang, Laurence Alan (California at Los Angeles), North Hollywood, California

Lhotsky, Dora Maratka (Duke), Durham, North Carolina

Lloyd, Stephen Carroll (Johns Hopkins), Baltimore, Maryland

Lothman, Eric William (Duke), Kirkwood, Missouri

MacIntosh, Victor Henry (Duke), Chapel Hill, North Carolina

McCarley, Dean Latain (Northwestern), Sarasota, Florida

McLean, Susan Jenkins (North Carolina). Durham, North Carolina

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Moore, Reginald Graham, Jr. (U.S. Military Academy), Durham, North Carolina

Moss, Jonathan (Harvard), Belmont, Massachusetts

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Newman, Walter Joseph (Duke), Clinton, North Carolina

Novak, Pamela Peksa (Maryland), Simpsonville, Maryland

Novak, Robert William (Brown), Berea, Ohio

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Pfister, William Charles (Duke), Monroe, North Carolina

Phillips, Harry Rissler, III (Washington & Lee), Spartanburg, South Carolina Powell, Robert Charles (Shimer), Largo, Florida Priour, Harlan Lary (Duke), Ingram, Texas Reid, Barbara Sue (Rice), Shreveport, Louisiana Rhoads, Edward John (Duke), Durham, North Carolina Robinson, Charles Hall, Jr. (Princeton), Elizabeth City, North Carolina Rockson, Stanley Glenn (Duke), Miami Beach, Florida Scheinberg, Richard (Princeton), Miami Beach, Florida Singer, Francis P. G. (Duke), Ft. Lauderdale, Florida Singletary, William Vance, Jr. (Duke), Durham, North Carolina Sneiderman, Charles Alan (Maryland), Wheaton, Maryland Snyder, David Warren (Princeton), Metairie, Louisiana Stansbury, Stephen Williams (Johns Hopkins), Louisville, Kentucky Stubbs, Thomas Mangum (Princeton), Durham, North Carolina Tift, Jerome Pound (Vanderbilt), Macon, Georgia Toher, Raymond Joseph, Jr. (Duke), Spartanburg, South Carolina Waite, Robert Sears (Duke), Atlanta, Georgia Walther, Philip John (Michigan State), Van Wert, Ohio Wesly, Robert Lawrence (Western Maryland), Severna Park, Maryland Westby, Steven Ray (Duke), Madison, Minnesota Wiener, Stephen Robideaux (Yale), Portland, Oregon Williams, Robert Dean, Jr. (Duke), Durham, North Carolina Zaino, Richard John (Holy Cross), Scotch Plains, New Jersey



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Ahmann, Gerald B. (St. Charles, Missouri), University of Utah Affiliated Hospitals, Salt Lake City, Utah

Alexander, Leon George (Gastonia, North Carolina), Duke Medical Center, Durham, North Carolina Baber, Collins E. (Hempstead, New Jersey), Duke Medical Center, Durham, North Carolina Barham, James E. (Columbia, South Carolina), Hunterdon Medical Center, Flemington, New Jersey Bateman, Alan L. (New York, New York), Harvard Medical Center—McLean Hospital, Belmont, Massachusetts

Bermanzohn, Paul C. (Bronx, New York), North Carolina Memorial Hospital, Chapel Hill, North Carolina

Berry, William Rosser (Raleigh, North Carolina), Duke Medical Center, Durham, North Carolina Blumhagen, Dan W. (Lansing, Michigan), Brown University—Miriam Hospital, Providence, Rhode Island

Board, Robert Jeffrey (Front Royal, Virginia), Walter Reed Army Medical Center, Washington, D. C.

Brantley, Ingrid Pierce (Hillsborough, North Carolina), Duke Medical Center, Durham, North Carolina

Broders, Alpert Compton (Temple, Texas), Parkland Memorial Hospital, Dallas, Texas
Brownlee, Michael Alan (Rice Lake, Wisconsin), Stanford University Affiliated Hospitals, Stanford,

Burge, Joseph J. (Shenandoah, Pennsylvania), University of Utah Affiliated Hospitals, Salt Lake City, Utah

Call, Newel Branson (Portland, Oregon), University of Utah Affiliated Hospitals, Salt Lake City, Utah Carnevale, Nicholas T. (Tuscon, Arizona), San Diego County, University Affiliated Hospital, San Diego, California

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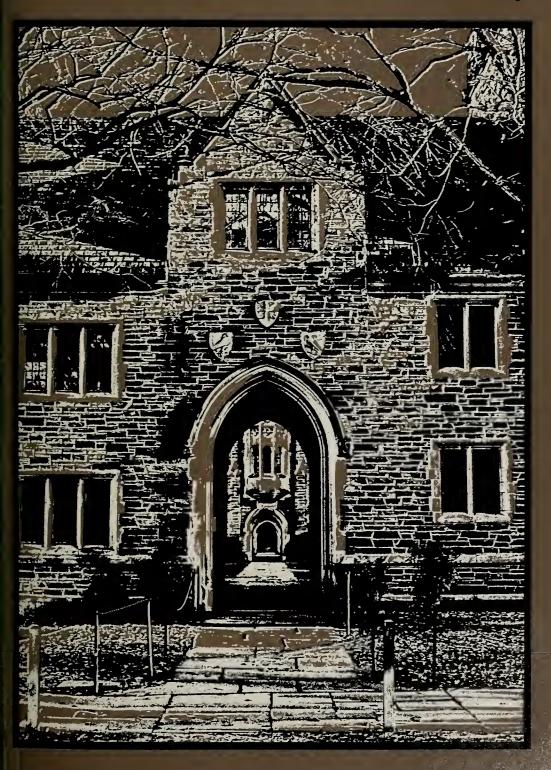
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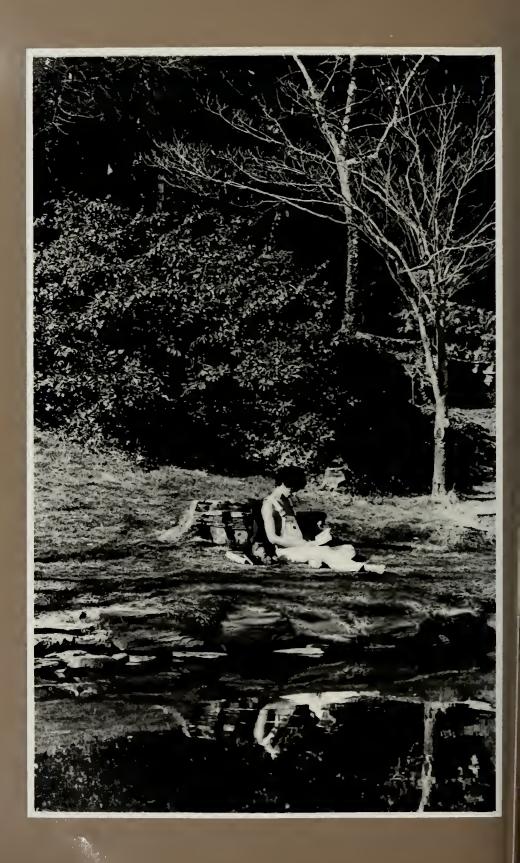
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Why Think of College at All?

Why Duke?

by Reynolds Price

Reynolds Price was born and educated in North Carolina. After graduating from Duke University in 1955, he studied as a Rhodes Scholar in Merton College, Oxford University. In 1958, he returned to Duke to teach and write, and several years later his first novel, A Long and Happy Life, won the William Faulkner Prize for a notable first work.

As professor of English and writer-in-residence, Mr. Price teaches courses in Milton and creative writing. His subsequent novels, short stories, and essays have won national acclaim.

Why go on to college at all? Presumably, you're seventeen or eighteen years old. That means you have probably lived one-fourth of your life by now and are no longer pleading "Youth!" as an excuse for your errors or thoughtlessness. (You know who I mean—"I'm only eighteen; how was I supposed to know?" The answer is "Through your eyes and head; you've had twenty-five percent of your life to learn in.") So by now you'll have asked yourself that question in many forms—why go to college?

The simplest answer—now, in America—is "Why not? My friends are going. It's the next thing to do. My parents want it. Future employers demand it. It's a temporary detour from the Hard World, Jobs, Marriage (though I've heard college doubles as a marriage-broker). What else would I do?"—For one thing, you might do what most of the human race has done and still does long before age eighteen—leave home and begin your free life, for which you must work.

But of course there are far more serious answers. "I don't know enough yet—about the world, myself, others, least of all God—to want to begin my free life just now. If I tried, I'd have slim hopes of being free. I'd be bound and trapped by all I didn't know and, worst of all, by what I didn't know I didn't know. These four years of college are the time my society—like it or not, it's stronger than me and has the power to paralyze me in misery—has agreed to allow me for final preparations."

—Preparations for what? That's the next question and it goes down deeply.—For this "free life" I've mentioned in the "real world"? You can't prophesy the life you're going to have, the world you'll meet; so how can you prepare for a succession of mysteries?—You have to guess at what those mysteries will be; and unless you're psychic, you can only begin to guess at the future by examining and understanding the past—your own, your race's, the past of the universe. And you have to guess at who will accompany you



through your life—your parents partway, your wife or husband, children, friends, colleagues, your unavoidable enemies. The only prior certainties are these—that you'll have your life (some sort of life) till the moment you die and that you yourself will be your one permanent inescapable companion through every moment until the last.

So I would suggest that the simplest, truest answer to "Why go to college?" is implied in the need to meet and deal with those two certainties. You go to college to continue your education—for the last years of your life which are likely to be free of heavy social burdens and therefore available to you as time in which to concentrate. You'll say I'm talking circles—what is "education"?

You know its etymology, from Latin—e-ducere, to lead out or draw out. But draw what out of what?—to draw yourself out of your physical and emotional childhood. To draw your own innate and acquired qualities of character and skill out of their confining fat of natural ignorance, laziness, self-destruction. To draw out of yourself, teachers, friends, and books the strengths you will need to live your life.

"Why bother?" you might say—"Most human beings have lived their lives with the barest minimum of formal education; most in fact with none at all."

I'd say, "Right, and most lives have been miserable. You're going to have your life—unless you choose to stop it—so you'd better discover as soon as possible how to have it, what matters in it." Lord Salisbury, Victoria's prime minister, once said when asked if he didn't think it mattered greatly for someone to do thus and so—"Nothing matters very much and few things matter at all." The remark may shock you, as it still does me every time I hear it; but it says nothing new. It seems at first to share the weariness of Marcus Aurelius, the easy disillusionment of Ecclesiastes, the Rubaiyat and a billion adolescent diaries—Vanity of vanities, all is vanity. But that's not what Salisbury

said (though he might, having presided for years over the largest empire in the history of the world)—not "All is vanity" or "Nothing matters" but "Nothing matters very much and few things matter at all."

What few things? I'd suggest that another bout of serious education is your last chance of finding out some of those things at least (and the ways to pursue them or live in their presence or absence if need be) before having to discover them all by the primeval and appallingly wasteful method of surprise and experience—life-between-the-eyes, with no fair warning and no advance

knowledge of preventives or cures.

One of the things which will matter greatly, in your life and the lives of those close to you, is the work you choose to do. There's a lot of sneering and wincing lately at what's called the Puritan or Protestant Work Ethic; the ethic which, we're told, "made America great"—"Work for the night is coming... The Devil finds work for idle hands . . . A man's work is his truest worship." In short, many young people now deride an ethic which has come to see virtue in busy-ness, whatever the nature or aim of the business, war or peace, good or bad. And no man of good sense would try to deny that the old Judeo-Christian ethic has degenerated on many sides into the cynical, near-hysterical pursuit of money and power-for-the-sake-of-power. But to recognize decay in a concept is not to demand its abandonment, rather its repair—provided that the decay is not inherent in the concept itself, in some innate falsity or in its inappropriateness to present conditions. Work in the sense of daily effort at a job—work as labor-may be rapidly doomed for increasing numbers of men by automation, prosperity, governmental support. The fact remains however that we have our lives-say seventy years-and we have to get through them, some 25,690 days at twenty-four hours each, two-thirds of them conscious. And until medicine has developed far more sophisticated tranquilizers or methods of genetic manipulation or mind-control, we're going to have to find our own



ways to pass, to endure, that time and the disciplines and techniques for

passing it, if not usefully and happily at least harmlessly.

Until that day of universal leisure and the understanding of the uses of leisure, I'd suggest that your work can be your most reliable life-companion, your safest hope of freeing yourself.—Freeing yourself from what? First, from physical want—hunger, cold, disease. Then from other human beings, especially those you love. This is not to claim that you'd wish to abandon the duties of love toward your family and friends; it is to claim that only through your own early discovery of, cultivation of, some absorbing work—laying roads, exploring space, writing novels—will you have much chance to free yourself, not from love but from the crippling emotional dependence upon other human beings which poisons anyone who has nothing in his life upon which he can rely which promises to be more permanent than other people. A craft, a skill can—given good health—last you all your life. Very few friends, wives, sons, daughters can prove as enduring however much they wish to. Then last, work can free you from yourself; for your self will remain true longest of all. All your weaknesses will court you to your grave; and only a daily commitment to some work which will demand from you full exercise of your strongest self can free you from them.

Then I'd suggest that a full definition of *education*—for now at least—might go like this: Education is the process by which a man or woman discovers, as early as possible in his brief life, the nature and duties of the work which he

desires and needs and is fitted to do and the means of doing it.

Am I speaking of formal education?—the sixteen to nineteen years of school and college you're likely to experience?—or, more broadly, of a private search and process conducted on your own? I mean formal education, conducted within an academic community, established however humanly and therefore imperfectly, maddeningly. Why so limiting?—Because not one man in fifty

thousand has the resources of curiosity, concentration, self-control and stamina to lead himself, unassisted and unregulated, through the disciplines of even a minimal education.

If I assume that you've accompanied me this far, then I can hope that you won't think I'm producing—with a sly Ah-ha!—a rabbit from my hat when I say that your next question might be, "Why think of Duke?" Presumably you've already asked the question or you wouldn't be reading this pamphlet.

Leaving aside personal loyalties (that I was an undergraduate at Duke, that I returned to Duke to teach and have found it a good place for writing fiction), my first and also final answer would be—because Duke is almost certainly as good a university as you are a man or woman. By which I mean that, provided any special interest of yours is dealt with at Duke, its major resources will match your needs and abilities and will test your character and stamina, your determination to do serious work, to have a free and serious life.

—Not every resource now—apart from equipment, Duke consists of human beings (a loose collection of ten thousand students, faculty, administrators, staff); and you would be faced often with the fact that such an institution is subject at every turn to failures in the competence and character of each member. But where will you not be faced with that fact, that particular frustration?—in a smaller college? A smaller college consists of fewer people—that much is sure, if that's a comfort; most universities consist of tens of thousands more—but a smaller college also contains fewer of the resources in which Duke is well-stocked.

I'd suggest that the major resources of Duke—and your heaviest reasons for considering it—are these (and in this debatable order):

—a library whose two million books and four million manuscripts place it among the first twenty university libraries in America.



—a curriculum providing great fluidity of individual speed, intensity and independence within the bounds of responsible good sense.

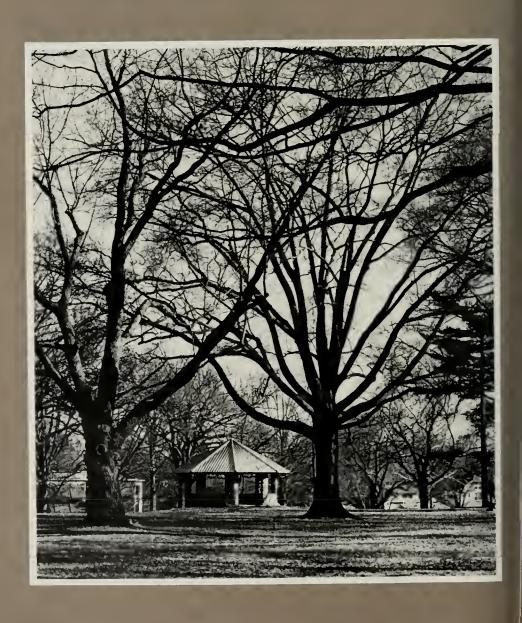
—a total faculty of more than one thousand, some five hundred of whom work with undergraduate students (a faculty-student ratio then of one to ten), a number of whom are distinguished scholars and some of whom are well-known on campus (ask any student) for the excellence of their classroom efforts and their concern with serious student interests.

—an undergraduate student body of about five thousand which contains an unusually high and growing proportion of excellently informed men and

women engaged in their own work.

—then, the place. Not so much the famous neo-Gothic and Georgian quads as the huge green setting. The campus is set in some eight thousand acres of thick pine forest, granite bluffs, creeks, rivers. Walk twenty minutes—or drive for five—and you're deep in woods. Clear air, clean light, silence, animals, arrowheads. Unprettified wilderness, available to you. If that doesn't seem a 'major resource' for your education, you'd probably be happier in an urban nexus.

There are many other assets—and liabilities—but my suggestion after more than fifteen years of exposure to the place, man and boy, is that if you are an American of undergraduate age who seriously wants to continue an education (as broadly defined above), who finds your special subject offered at Duke and is prepared to work within the general frame of a liberal curriculum at a private institution (which would imply that you have few delusions about the paradisal nature of institutions or the ease of changing them), then you won't find ten more possible places—more resourceful and better located for work. Make it five. Or eight—that's only a game. The real question now, I'd think, is about you.



The University

The Duke University campus is situated at the west end of Durham, North Carolina, a city of 100,000 that offers a compromise between urban and rural living. Durham, in conjunction with Raleigh and Chapel Hill, forms an expanding community known locally as the Triangle Area. Several major universities and the Research Triangle Park give the area an academic flavor and contribute to a growing population, cosmopolitan in character.

Nine thousand acres of pine forest with an abundance of trails and creeks compose the University landscape. Two campuses, East and West, which are linked by free and convenient shuttle service, occupy 500 of these acres and span a distance of two miles. The West Campus is an imposing complex of neo-Gothic buildings that intersect to form conventional quadrangles. East Campus, placid and tree-shaded with rows of Georgian

buildings, was the original site of Trinity College.

When James B. Duke granted his Indenture of Trust transforming college to university in 1924, coordinate liberal arts colleges for men and women were established on the West and East Campuses, and provision was made for programs in engineering and nursing. In September, 1972, almost fifty years later, the two liberal arts colleges merged, and three divisions now comprise the undergraduate student body—Trinity College of Arts

and Sciences, the School of Engineering, and the School of Nursing.

Duke's library collection of two million volumes and four million manuscripts is recognized nationally as a superior resource for research of all types. There are comfortable study areas within the library and a Rare Book Room which is the University's repository for its collection of more than 30,000 rare books and manuscripts, including nearly all first editions of Frost, Byron, Whitman, and George Eliot. Through a reciprocal agreement, the libraries of the University of North Carolina at Chapel Hill, North Carolina Central University in Durham, and North Carolina State University in Raleigh are also open to Duke students.

The University's effort to enhance student and faculty research is evident in the presence of several laboratory facilities. Among them are the Paul M. Gross Chemical Laboratory, a regional Nuclear Structure Laboratory, a hyperbaric unit recognized for its use in the application of atmospheric pressure in experiments and delicate surgical procedures, and a phytotron allowing duplication of environmental conditions found any-

where in the world.

• The Institute of Policy Sciences and Public Affairs attempts to augment classroom theory by providing opportunities for the concrete analysis of existing public policies and the institutions which administer them. It serves as a framework in which students and faculty from many disciplines work together in problem-oriented research and teaching.

• The newly completed Mary B. Duke Music Building provides ample practice and classroom facilities for both music majors and non-majors. It contains, in addition, an electronic music laboratory and two recording studios.



• The art museum on East Campus houses the University's permanent collections as well as those on loan from individuals and other museums. It is perhaps best known for the Brummer collection, containing sculpture and decorative arts of the Middle Ages and Renaissance.

 The Sarah P. Duke Gardens, idyllic and well-tended, span fifteen acres in the heart of the campus and function as an open-air laboratory for the study and cultivation of plants

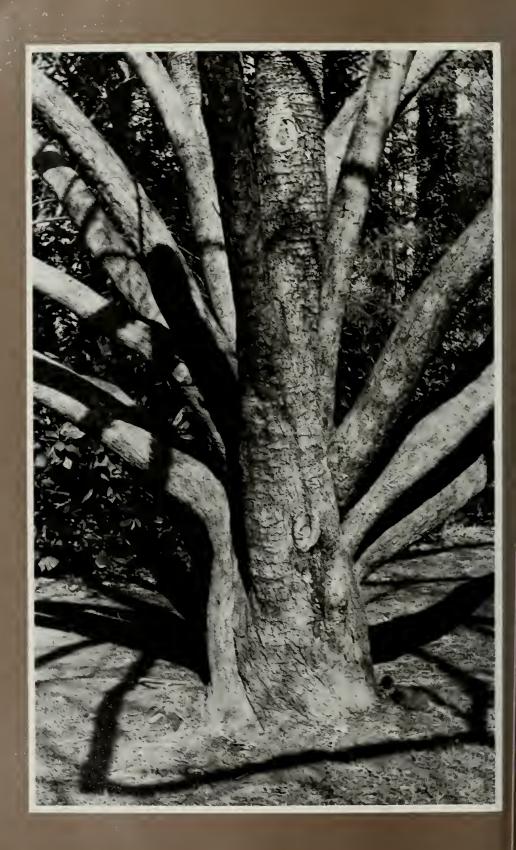
indigenous to the area.

However, the wealth of human resources common to both college and community is the University's most enduring asset. From its earliest beginnings as Brown's Schoolhouse in 1838 to its present status as an evolving institution, Duke has cultivated the productive interaction of disparate personalities, intellects, and ways of life.









The Classroom and Beyond

The Academic Setting

The University has designed a curriculum that provides structure for those students preferring clearly defined academic programs, and flexibility for those whose scholastic

interests demand independence.

Curriculum options allow a student in the liberal arts to major in a single department or to expand his course of study to include work in related departments. A unique and viable plan of study can be designed as an alternative, under the broad guidelines of Program II, which are well worth investigating. In addition, Free University and house courses, independent study, and study abroad substantially complement the Duke academic experience.

Although Trinity College of Arts and Sciences and the Schools of Engineering and Nursing exist for distinct educational purposes, the importance of the liberal arts is acknowledged and encouraged by the professional schools, and liberal arts students are able to supplement their work with elective courses in Engineering and Nursing. Students in each division are advised to explore opportunities in all three divisions.

Faculty advisers are available to all students for consultation and assistance in the design of their programs of study. A number of faculty members agree each year to serve as academic advisers for freshmen and departmental advisers for upperclassmen. Students may also consult departmental directors of undergraduate studies, supervisors of freshmen.

man instruction, and the academic deans of the colleges.

Study abroad, a curriculum option that is becoming increasingly popular among undergraduates, is best undertaken during the junior year, after course requirements have been fulfilled. Duke, in coordination with other American universities, has established five programs in various parts of Europe. Students who are more adventurous are not necessarily restricted to these programs; credit may be earned for any American or foreign sponsored program of study meeting Duke's accreditation standards.

Groups of students and faculty members are often able, with assistance from the administration, to coordinate programs of study relating to their specific interests. For example, a group of students interested in music initiated a proposal for a semester of study in Vienna in the spring of 1973. An archaeological dig in Israel has provided the substance for a Biblical studies course in archaeological investigation. Students of English literature may apply to participate in a year-long exchange program with the University of Warwick in England. Other groups of students and faculty have studied in Spain,

France, Italy, and Germany. In all these programs the students enroll at Duke and pay the

appropriate summer term or semester tuition.

Professional school preparation includes two outstanding programs in law and medicine that are not as confining academically as some would believe. For instance, premedical students are able to devise course schedules which not only include the courses recommended by medical schools, but accommodate more personal academic interests as well.

Course credit toward completion of graduation requirements is awarded only on the basis of the Advanced Placement examinations of the College Entrance Examination Board. In most cases, a score of 4 or 5 will earn degree credit, and a score of 3 will merit conditional credit. Final acceptance of a score, however, is at the discretion of the de-

partment involved.

The Achievement Tests of the College Entrance Examination Board are utilized by individual departments for placement, and in some cases students who perform well on these tests are relieved of introductory requirements. For example, a one semester course requirement in English composition may be waived for students having scores of 700 or above on the English Composition Achievement Test.











TRINITY COLLEGE OF ARTS AND SCIENCES

Trinity College of Arts and Sciences, the largest of the undergraduate divisions, comprises approximately 4,500 undergraduate men and women. Program I, the curricular plan chosen by most students, is a framework which includes study in the natural sciences and mathematics, the social sciences, and the humanities. Students pursue the requirements for a major in one of these areas, undertake advanced study in a second, and elect at least two courses within the remaining area. Interdisciplinary programs, such as public policy studies, comparative literature, and comparative area studies in Africa, Asia, and Latin America, provide for some undergraduates an alternative to the departmental major. Other students design programs involving work in two or more departmental areas, so that the resultant curriculum is a unique and adequate basis for graduate work. Exposure to seminars, tutorials, and other classroom formats in which dialogue between students and faculty is predominant constitutes an integral portion of each student's curriculum. This exposure is intensified during the junior and senior years as advanced seminars and independent study become more significant aspects of the academic experience.

Program II exists for the person whose interests cannot be accommodated by the course offerings provided in Program I. A student securing approval from the University's Program II committee and counsel from a member of the department closely related to his proposed course of study goes on to design a working plan compatible with his interests. The committee and adviser assess the student's background and then determine, in conjunction with the student, whether the University has resources sufficient to meet his ambitions. However, Program Il students are not necessarily restricted to University resources and in many cases they have received academic credit for work completed away from the Duke campus. Since acceptance into the program releases these students from most standard curricular requirements, they are free to develop educational experiences of almost any emphasis. Topics have included such areas as Appalachian Cultural Studies, Twentieth Century Musical Composition and Conducting, Topics in Plant Physiology, and the Political Implications of Contemporary Christian Thought. Ordinarily, a student designs his plan of work after at least one semester at Duke. However, applicants to the University may present a preliminary proposal to the Admissions Office for tentative review and comment by the Program II committee.









THE SCHOOL OF ENGINEERING

Engineering is defined broadly as the application of technology for purposes of satisfying environmental needs. Duke's School of Engineering attempts to provide its students with the ability to assess and meet those needs through the development of effective technological methods. The engineering curriculum at Duke is therefore characterized by a modification of the scientific and technological environment that acknowledges and includes the liberal arts tradition.

The School of Engineering offers a four year program leading to the degree of Bachelor of Science in Engineering (B.S.E.) with majors in the areas of biomedical, civil, electrical, and mechanical engineering and materials science, or in individually approved interdisciplinary programs of study. The following are general course requirements that most engineering majors fulfill: English 1; four mathematics courses stressing topics in analysis (calculus), linear algebra, and differential equations; Chemistry 11; Physics 51 and 52; four courses in the humanities and social sciences; and three courses in selected areas of engineering science. Of the remaining seventeen courses required for graduation, the major department specifies between eight and eleven courses, leaving between six and nine as electives.

Small-group learning experiences are an integral part of the engineering program at Duke because of the relatively small enrollment in the School of Engineering. Independent projects and study may be pursued, mainly in the junior and senior years, and earn regu-

lar course credit.

Students may design curricular plans satisfying requirements for the B.S.E. with major work in two areas; the second major may involve work in another engineering department or in a department in the arts and sciences. Engineering students are currently pursuing second majors in chemistry, mathematics, management sciences, public policy studies, psychology, and zoology. In fact, one of the strengths of the engineering program at Duke is its ability to prepare students for a variety of career options. Recent graduates not only have been sought after for employment as engineers, but they have been accepted into graduate and professional schools in engineering, medicine, law, business administration, economics, oceanography, city planning, journalism, materials science, public administration, physics, and psychology.





THE SCHOOL OF NURSING

The School of Nursing offers a four-year program in which students develop professional competence as well as sensitivity to the needs of the human organism. The curriculum is flexible, expanding from an initial two-year foundation in natural and behavioral sciences to an intensive preparation in theoretical and clinical nursing during the third and fourth years.

A unit of the University Medical Center, the School of Nursing is also one of three undergraduate divisions at Duke University. The nursing student is able, as a result, to benefit from professional challenges as well as those afforded by outstanding liberal arts and engineering programs. Instructional and clinical facilities include the 823-bed Duke Hospital, the Veterans Administration Hospital, the Durham Health Department, the John Umstead Hospital, and the Lenox Baker Cerebral Palsy and Crippled Children's Hospital of North Carolina. Each of these facilities offers unique opportunities for pursuit of specific interests.

More detailed information about the nursing program is contained in the section entitled Areas of Study, and prospective students are encouraged to write to the Office of the Dean in the School of Nursing regarding any questions they may have.



















The Residential Setting

Students entering Duke as freshmen choose from among living groups of various types on the East and West campuses. The residential structures provided include women's and men's dormitories, coeducational dormitories, freshman and four year houses, and federations of dormitories, all of which determine their social regulations by vote of the membership. Fraternities and sororities exist as a supplement to the residential/social structure, and not as a substitute for it. The men who join fraternities often live together in sections of dormitories; the sorority structure is non-residential. Approximately 45 percent of the students belong to fraternal organizations.

In some instances, distinct living groups exist for students with special interests. Epworth Inn, for example, is a women's dormitory in which student interest centers on the contemporary arts. Housed in a dormitory on the East campus, SHARE consists of men and women from the three undergraduate divisions who have attempted to create a more deliberate blend of their academic interests.

Some living groups initiate dormitory courses which vary each semester according to





the interests of the students. Recent course topics have included the History of Black Music in America, the Emergence of the American Woman, Auto Engineering, Drama, and Community Politics.

Freshmen can be assured of dormitory space for four full years. Those who wish to live off campus, however, may petition to do so after the freshman year. Dining facilities are available throughout the University. Students on the East Campus pay a fixed 5-day or 7-day sum; those on the West Campus pay for each meal individually.

Sometimes the sheer wealth of alternatives for personal development can prove overwhelming. The Counseling Center provides a professional counseling service designed to aid students in gaining a better understanding of themselves and the opportunities available to them. Counseling in the areas of career planning, educational opportunities, and personal and social adjustment is available to those who seek it. The Office of Placement Services provides career counseling as well and assists in the placement of Duke students in professional positions after graduation.

The Student Health Program is closely related to the teaching hospital of the University Medical Center and provides the security of excellent service during the undergrad-

uate years.

STUDENT GOVERNMENT

The Associated Students of Duke University (ASDU) has evolved over the past few years into a strong advocate for student concerns and has gained an influential role in determining policy decisions which affect the entire University. ASDU representatives serve on all University committees, all sub-committees of the Undergraduate Faculty Council of Arts and Sciences, and on the major committees of the Board of Trustees. Two recent graduates serve on the full Board. Groups formulating University social and residential policies have one-half student membership, and students participate in substantial numbers on search committees for high-level administrators.

The Engineers' Student Government coordinates the activities of all student organizations within the School of Engineering, acts as a liaison with the Associated Students of Duke University, and represents the interests of engineers in their relationship with the

public, faculty, and administration.

The Nurses' Student Government Association governs the student body of the School of Nursing and encourages each student to develop and exercise personal, academic, and professional responsibility, and at the same time to realize her autonomy within the regulations of the community.

The Men's Interfraternity Council (IFC) is composed of eighteen Greek letter residential living groups—fifteen national and three local fraternities. The purpose of the IFC is to establish and maintain a framework of harmony and growth for the fraternity system, and to promote programs which improve the living situations and the educational life in the member houses.

Panhellenic Council, representing nine sororities, works to unify the campus sorority structure and to coordinate activities in which Greek women participate. Although the council encompasses legislative, executive, and judicial duties, each sorority manages its own internal affairs.

The Undergraduate Judicial Board has twenty-one members. Twelve are students from each of the undergraduate colleges and schools, six are faculty, and three are representatives of the administration. The Board adjudicates student disciplinary cases and disputes.

THE UNIVERSITY UNION

The Union exists to promote social, recreational, and cultural activities on campus. It is actively involved in the planning and fund raising activities for a new Union Building.

The Drama Committee works to further dramatic interest and understanding on the campus and in the community. Professional companies provide the major thrust of the committee's involvement through its "Broadway at Duke" series, although the committee's activities include seminars, receptions, cast parties, workshops, and readings.

The Freewater Film Society, which is beginning its second year as a Union Committee, sponsors two film series, one dealing with foreign and classic films and the other with recent popular films. Freewater is also concerned with the production of student films, some of which have been nationally recognized.

The Graphic Arts Committee provides the campus with a series of exhibits by local and nationally known artists. It sponsors craft fairs and student competitions in photo-

graphy and art.

The Major Attractions Committee brings to Duke quality contemporary groups,

with its main emphasis on rock, jazz, and blues performers.

The Major Speakers Committee sponsors appearances of prominent individuals in all fields of endeavor—politics, government, education, science, sports, religion, and the arts.

The Performing Arts Committee attracts major performers in the fields of jazz, folk, modern dance, ballet, and other areas of community interest. It sponsors local and regional groups, including the Carolina Repertory Company and the Triangle Recorder Society. Master classes, lecture-demonstrations, and informal receptions involving the arts are scheduled with most performances.



THE ARTS

The Symphony Orchestra prepares and presents two major concerts each year, usually with a distinguished soloist.

The Wind Symphony stages two formal concerts each year and a series of informal concerts, many of them in the Sarah P. Duke Gardens. The repertoire includes works written on commission for Duke University. A concert tour is scheduled each spring.

The Marching Band and the Pep Band bring musical pageantry to major athletic events.

The Chapel Choir of approximately 150 voices provides music for the Duke University Chapel worship service and presents in concert performances examples of the sacred masterpieces of Western civilization.

The University Chorale performs secular choral works of historical and contemporary interest. A spring concert tour takes this 100-member chorale to a number of metropolitan centers along the Eastern seaboard.

The Madrigal Singers is a small ensemble whose repertoire features Renaissance, Baroque, and twentieth-century compositions.

Student Chamber Music Ensembles, organized formally for course credit and informally as an extracurricular activity, explore the literature for string, wind, and keyboard media.

Duke Players presents four major plays and several workshop productions each year. Plays are presented in ¾ round, arena, and proscenium theaters. The organization is open to all students, and members serve in all phases of dramatic art.

Hoof 'n' Horn, a self-supporting theatrical group, presents a minimum of three musical productions a year, two or more in an intimate 120-seat theater called "Fred," and one larger production in Page Auditorium during Joe College and graduation weekends. Cabaret, The Fantasticks, Applause, and Promises, Promises are selections from recent years.

The Duke Dance Group welcomes anyone with an interest in modern dance and offers opportunities for both performance and choreography.

THE MEDIA

The Publications Board, composed of students, faculty, and administrators, oversees all official undergraduate student publications. It is empowered to choose editors and business managers and to review and approve the financial statements of all franchised publications.

The Archive, Duke's literary magazine, seeks to strengthen and encourage the growth of creative arts at Duke by publishing contributions from the Duke community in the fields of poetry, fiction, book reviews, essays, fine art, and photography. The staff also sponsors the Blackburn Literary Festival.

The Chanticleer is the University year-book.

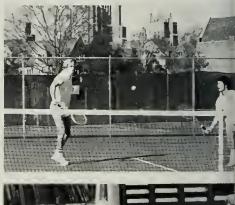
The Duke Chronicle, the campus newspaper published Monday through Friday of each week, covers campus and national news and sports and includes national news coverage provided by the New York Times News Service. Positions for work in all departments, including news, sports, features, arts, business, and photography, are open to all undergraduates.

The DukEngineer is a semi-technical magazine published four times a year by students of the School of Engineering.

Hotline, published monthly by the cadets of Air Force ROTC, contains organizational news, interviews, and editorials.

WDBS, Duke's radio service to the Durham, Chapel Hill, and Raleigh area, is programmed by a staff of nearly eighty undergraduates. Broadcasting progressive rock, jazz, and concert music from a control room-studio complex on East Campus, the station's FM stereo signal reaches eight college and university campuses in the Triangle area. Positions on the news, sports, announcing, and business staffs are open to freshmen. WDUR-AM is a campus-only service allowing the opportunity for on-the-air experience.







RELIGIOUS ORGANIZATIONS

Though religious activity at Duke is both voluntary and personal, the University provides several provocative opportunities for fulfillment of religious interests. The ecumenical attitudes of the student body are best conveyed through interdenominational worship services held weekly in the Duke Chapel. Individual denominations are represented by distinct groups in an effort to accommodate specific religious preferences. For example, Hillel, an organization for Jewish students sponsors weekly services as well as celebrations for all festival occasions of the Jewish tradition. The Newman community celebrates Mass each Sunday. On the first Sunday of each month a special worship service is sponsored for and by Black students.

The Duke University Parish Ministry provides services to the student body through the cooperative work of staff, faculty, and community members representing the Baptist, United Methodist, Roman Catholic, and Presbyterian constituencies. Lutherans, Episcopalians, B'hais, and the Society of Friends also constitute religious groups on campus, in addition to Inter-Varsity Christian Fellowship, Campus Crusade for Christ, and the YW-YMCA. Through these and other organizations, students are able to participate in study and service projects concerning topics such as world hunger,

prison reform, racism, sexism, and human sexuality.

ATHLETICS

Varsity sports for men have a long history of successful intercollegiate competition in baseball, basketball, fencing, football, golf, lacrosse, soccer, swimming, tennis,

track, and wrestling.

Women's varsity sports have grown rapidly during the past decade from occasional extramural games to intercollegiate competition in basketball, golf, gymnastics, hockey, swimming, tennis, and volleyball. Track, lacrosse, and fencing teams are being developed.





RECREATION

Intramural activities provide an opportunity for all students to engage in sports of their choice. There are three active programs: men's, women's, and coeducational. Lighted tennis courts, a new intramural building on West Campus, and a new recreation and physical education facility being designed for East Campus are increasing the opportunities for participation.

Club sports supported by ASDU offer still another opportunity for students to participate in activities of their choice. Among these clubs are folk dance, karate, rugby,

sailing, soccer, and synchronized swimming.

Independent recreation may be pursued whenever facilities of East and West Campus are not scheduled. Three pools have open swimming hours, and the running tracks, tennis courts, exercise rooms, and other courts and fields are also available whenever possible.













MISCELLANY

A complete annotated list of undergraduate activities would be unwieldy; students whose interests are not listed below are encouraged to write for information.

A.I.E.S.E.C. American Field Service

Association of African Students Badminton Club

Bench and Bar Society Blue Jeans

Cheerleaders
Chess Club
Chinese Stud

Chinese Student Association

College Republicans

Committee for Concerned Scholars

Debate Team Demolay

Directions for Educated Women

Duke Folksong Society Duke Jazz Ensemble

Duke Ski Team ECOS

Food Co-op Football Club Goat Watching Society International Club

International Folk Dance Club

Karate Club

Duke Men's Alliance

North Carolina Public Interest Research Group

North Carolina Student Legislature

Nereidians

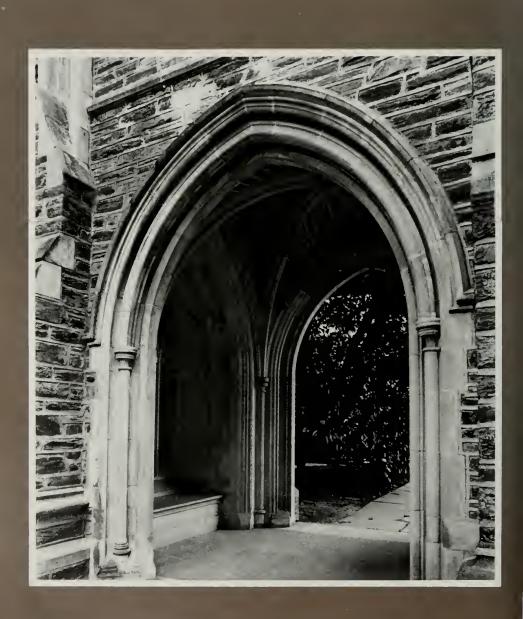
Duke Outing Club Photography Group Pre-Med Society Rugby Football Club

Sailing Club Skeet Club

Soccer Club Sport Parachute Club Tocqueville Society

Women's Alliance Young Democrats

Young Americans for Freedom



Admission

Freshman Admissions

The Admissions Committee attempts to look beyond the academic proficiencies displayed by the majority of applicants. It seeks to determine in each prospective student

evidence of intellectual capability, maturity, and productive energy.

Since the number of students applying exceeds the number of available positions, selectivity is a necessary part of the admissions process. Although no single criterion will spell the success or failure of an application, the secondary school record is regarded as one of the most significant documents in the application, because it has proved to be the soundest indicator of academic ability, potential, and motivation. Secondary school recommendations (as well as additional letters of recommendation) give meaning to the objective information and are considered extremely useful in determining the qualifications of an applicant.

Requirements concerning secondary school subjects are flexible, although at least 12 high school units must be in college preparatory subjects such as English, foreign language, history and social studies, mathematics, and physical or biological sciences. Applicants to the School of Engineering are advised to present 4 units of mathematics and at

least 1 unit in physics or chemistry.

It is the performance of the individual applicant within his own school environment which particularly concerns the Committee on Admissions. The Committee recognizes the varying levels of instruction and types of evaluation utilized by secondary schools and, therefore, imposes no minimum rank that a candidate must achieve before he will be considered. A profile of the current freshman class may be obtained by writing to the Office of Admissions.

All freshman candidates are required to take the College Entrance Examination Board Scholastic Aptitude Test (SAT), the English Composition Achievement Test, and two other achievement tests of their own choosing. Candidates for the School of Engineering must take an achievement test in mathematics. Though this battery of tests is preferred by the Admissions Committee, examinations offered by the American College Testing Program (ACT) are also acceptable and students should observe the test deadlines indicated in the admissions calendar on page 37.

Although it is clearly to the applicant's advantage to perform competently on standardized examinations, it should be remembered that these tests are not considered infallible predictors of academic success on the college level by the Admissions



Committee. Rather, they are viewed as imperfect indicators to be employed in conjunction with additional application materials. There is no minimum score that a student must earn on the SAT (or ACT) before he will be considered for admission, and no maximum score that will guarantee admission to the University.

Just as the Committee has refused to establish a minimum test score and class rank which prospective students must achieve before being considered for admission, it has also maintained an open policy with regard to the geographical distribution of the student body. The University's commitment to the region, however, is reflected in the fact that approximately 35 percent of a diverse and distinctly national student body resides in the southeastern United States.

Applications may be obtained from the Office of Undergraduate Admissions, 614 Chapel Drive, Durham, North Carolina 27706. A financial aid form will be enclosed.

Most students file their applications and the \$20 application fee early in the fall of their senior year. The secondary school report forms provided in the application packet should be given to the appropriate school official with the request that they be submitted to the University as soon as possible and no later than the application deadline.

February Notification exists for the student who has a clear interest in Duke and who wishes to hasten the decision on his application. The application deadline for February notification is December 15 of the senior year, thus enabling candidates to take achievement tests and SATs as late as December 6, 1975. However, earlier test dates are recommended. Decisions are mailed by February 1, and accepted candidates pay their reservation fees by February 15.

Students applying for February notification are not restricted to one college application; neither are unsuccessful applications postponed until the April 15 notification date. The candidate learns of the decision, *positive or negative*, by February 1. The same

criteria and standards govern applications under both notification plans.

April Notification candidates observe a February 1 application deadline, although most students file their applications and the \$20 application fee during the fall of the senior year. Scholastic Aptitude Tests and achievement tests must be taken by January 24, 1976. Decisions will be mailed by April 15, and accepted candidates should pay their reservation fees by May 1.

Midyear Admission is geared to the accelerating high school student, to the accepted Duke candidate who postpones matriculation for one semester, and to the high school

graduate who applies to college after the senior year. Students who have been accepted for September admission may request that their places be held for the semester beginning in January, and in many cases they will find the Committee on Admissions sympathetic to their plans for the intervening semester. Some students work to earn money for college; others gain valuable pre-professional or travel experience; still others seek simply to gain an extra measure of maturity before entering college.

The application deadline for new candidates is October 15, although test dates fall considerably earlier. Achievement tests must be taken no later than May 10, 1975, and SATs no later than June 28. Students will be notified of the decisions on their applications by November 15, with the expectation that those who are accepted will reply by De-

cember 1.

Transfer Admission

A limited number of transfers are admitted to the University each semester on a non-resident basis. Most applicants have completed two and usually three semesters of work at fully accredited institutions and have achieved at least a B average before they submit applications for transfer. Transfer applicants are asked to present Scholastic Aptitude Test scores for review, although no achievement tests are required. In order to earn a Duke degree, transfers should expect to spend the last two years of undergraduate work in residence at the University.

Because of limited facilities, the number of spaces available for transfer in the School of Nursing is very small. Prospective candidates should consult the Office of Admissions

for further information before making application.

The Office of the Registrar evaluates the transcripts of transfer applicants only after they have been accepted, and it is difficult to predict, therefore, which courses will be accepted for transfer credit. Generally, however, courses taken at fully accredited institutions which are similar to courses offered at Duke will receive specific or elective credit from the University. A course in which a grade less than C- has been earned cannot be accepted for transfer credit. Pass/fail courses receive pass/fail consideration at Duke.

Although transfers cannot expect to live on campus, the Office of Housing Management assists them in finding accommodations (and often roommates) in apartments near the campus. Students desiring information about housing should write to the Director of

Housing Management.

Students who wish to be considered for September admission must submit applications by February 1; decisions will be mailed by April 15. For January admission, applications must be submitted by October 15; decisions will be mailed by November 15. In both cases, reservation fees must be paid within fifteen days after acceptance.

Applications may be obtained from the Office of Undergraduate Admissions, 614

Chapel Drive, Duke University, Durham, North Carolina 27706.

Visits to the Campus

Personal interviews are not required; in fact, the number of students requesting interviews has increased so dramatically in recent years that it is often impossible to grant all requests for individual appointments. Because the interview is designed primarily to assist students in learning about the University, those who cannot arrange an individual appointment should not be reluctant to join one of the group information seminars conducted each weekday by a member of the admissions staff. Student-led tours usually follow the group sessions.

From January through April when applications for admission are being reviewed,

individual interviews are suspended, although the group sessions continue.

If a candidate wishes to schedule an appointment at other times of the year, it would be wise to write at least two weeks in advance of the proposed visit. Monday and Friday

appointments are, understandably, in the greatest demand.

In many cities throughout the country, personal interviews are available to candidates through local Alumni Admissions Advisory Committees. If such a committee exists in a candidate's community, he will be notified and a personal interview arranged. These interviews usually take place during January and February.













Admission Calendar

January Freshmen

May 10, 1975 Last Achievement Test date for January

admission

June 28, 1975 Last SAT date for January admission

October 15, 1975 Deadline for submission of freshman applications for

January admission

November 15, 1975 Freshman applicants notified of admission and financial

aid decisions

December 1, 1975 *Accepted freshman applicants pay reservation fee

September Freshmen-February Notification

November 1, 1975 Preferred SAT and Achievement Test date for February

Notification applicants

December 6, 1975 Last SAT and Achievement Test date for February Notifi-

cation applicants

December 15, 1975 Deadline for submission of February Notification applica-

tions

February 1, 1976 Candidates notified of admission and financial aid

decisions

February 15, 1976 *Accepted candidates pay reservation fees

September Freshmen-April Notification

November, 1, 1975 Preferred SAT and Achievement Test dates for April Noti-

December 6, 1975 fication candidates

January 24, 1976 Last SAT and Achievement Test date for April Notification

candidates

February 1, 1976 Deadline for the submission of April Notification appli-

cations

April 15, 1976 Candidates notified of admission and financial aid

decisions

May 1, 1976 *Accepted candidates pay reservation fees

January Transfers

October 15, 1975 Deadline for submission of January transfer applications

November 15, 1975 Candidates notified of admission and financial aid

decisions

December 1, 1975 *Accepted candidates pay reservation fees

September Transfers

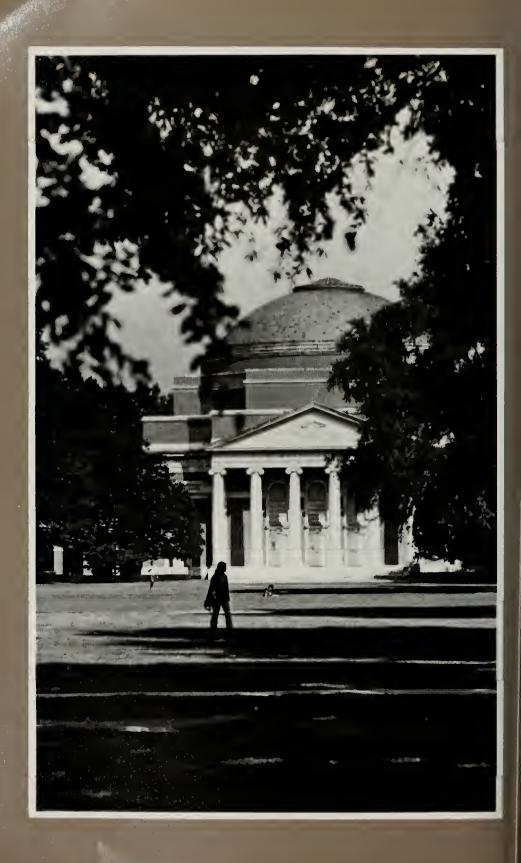
February 1, 1976 Deadline for submission of September transfer appli-

cations

April 15, 1976 Candidates notified of admission and financial aid

May 1, 1976 *Accepted candidates pay reservation fees

*These fees are nonrefundable.



Financial Information

Expenses

Total expenses differ, of course, with the tastes and habits of the individual student at Duke, but on the average a student spends slightly over \$5,200 during the academic year. Basic expenditures, with a reasonable sum allotted for books and supplies, follow:

| Tuition\$3,030 |
|--|
| Income from endowment and contributions make it possible for the University to |
| bear more than half the total cost of a student's education at Duke. |

| Room and Board (average)\$1,510 |
|--|
| The majority of rooms on campus are occupied by two students, although a limited |
| number of single rooms are available. Cost varies according to accommodations. |
| Men and women on the East Campus choose between a 5-day and a 7-day board |
| option. Students on the West Campus pay for each meal individually. |

| Books and Supplies\$20 |
|------------------------|
|------------------------|

These estimated expenses are subject to change, and the prospective student should consult the Office of Undergraduate Admissions for the most current information.

An initial, nonrefundable reservation fee of \$150 is paid upon acceptance to the University in order to reserve a place in the freshman class.

Assistance

A good college education, especially in a private institution, represents financial sacrifice for almost every family. Although no university can promise to ease completely the financial strain of college, Duke University's financial aid policy endeavors to ensure that no student admitted to the University will be prevented from attending because of lack of funds.

Qualified applicants are admitted to Duke University without regard to their need for financial assistance. Students in need of financial assistance are, therefore, encouraged to apply for both admission and financial aid; they will be notified of the financial decision at the time of acceptance.

Because the degree of assistance is determined on the basis of need, all financial aid candidates submit a Parents' Confidential Statement (PCS) to the College Scholarship Service in Princeton, New Jersey. After the admission decision is made, the Director of

Financial Aid reviews the Service's evaluation of the PCS and determines the degree and type of financial aid which will be necessary to allow the student to attend the University.

Of course, not all financial aid awarded to college students comes from the institution itself. Every applicant should consult his guidance counselor concerning the many national and local organizations providing assistance for higher education.

The Basic Educational Opportunity Grant Program exists for students whose families will need considerable financial assistance. Applications may be obtained from the high

school guidance counselor or the local post office.

A number of families make use of the Federal Insured Loan Program, designed to guarantee or ensure student loans made by banks or other incorporated state lending agencies. The interest rate of 7 percent will be paid by the government while the students who qualify are in school. The Financial Aid Office can provide the address of the lending agency for each state. Duke University is itself a guaranteed lender.

The Aid Package

The "package" is the form of financial assistance which is most familiar to undergraduates. The combination of University gift funds and opportunities for self-help enables Duke to extend its resources to all whose PCS evaluations demonstrate a need for them. Some portion of the aid offered will normally be in the form of grants, long-term loans, and employment. Acceptance of one portion of the assistance package does not obligate the student, though, to accept all portions of it. Students making normal academic progress toward graduation may expect financial assistance as long as the need for it is demonstrated.

Loan funds supplied by the federal government are available to financially qualified students. Repayment of loans usually begins nine months after the student ceases full-time study. Interest accrues at the rate of 3 percent; complete payment is scheduled to take place within a ten year period.

Nursing loans are also funded by the federal government and are available to qualified students in the School of Nursing. Interest accrues at the rate of 3 percent annually,

beginning nine months after a student ceases full-time study.

Employment, the other portion of the self-help aspect of the financial aid package, usually requires between nine and fifteen hours a week and provides an average stipend of \$700. The money is paid directly to the student as the work is performed. The Placement Office serves as a clearinghouse for part-time jobs both on campus and in the city of Durham.

Gift awards, in most cases, make up the difference between the sum allotted for self-help and the student's total financial need. Duke has many scholarships and grants-in-aid, based on need, which are available annually from personal endowments and corporation sources. These named scholarships may be awarded on the basis of achievement in a particular field or because of the generally outstanding quality of a student's record.

A single financial aid application, included among the application materials, will cover all Duke scholarships. With the few exceptions noted on the application form, a student need not apply for a specific award, for the Financial Aid Office will determine the

appropriate scholarship for each applicant.

● Angier B. Duke Memorial Scholarships are awarded to students whose superior records mark them as young men and women who give outstanding promise of becoming leaders in their chosen fields of endeavor. Candidates for admission to the freshman classes in Trinity College, the School of Engineering, and the School of Nursing are eligible to apply. Applicants for the scholarship are required to submit with their application a supplementary Angier B. Duke Memorial Scholarship questionnaire and two additional references.

Students with demonstrated financial need may receive up to \$4,500 annually. Angier B. Duke Scholars without demonstrated need receive \$500 per year as an honorary

stipend. The awards are renewable for the four undergraduate years.

Angier B. Duke Scholars may choose to spend one summer of their undergraduate

careers studying in a special seven-week program at Oxford University in England, or they may choose to undertake a self-determined educational experience which will be funded up to \$1,000 by the Angier B. Duke Memorial Scholarship Program.

Finalists for the Angier B. Duke Scholarship will be selected and invited to participate in the finals competition which is held late in March on the Duke University campus. Notification of winners will be made prior to April 15. All qualified students, regardless

of financial need, are encouraged to apply.

•Several scholarships have been established in recent years which give priority to students in specific counties in North Carolina. Among these are the W. N. Reynolds Memorial Scholarships, awarded first to children of employees of the R. J. Reynolds Tobacco Company and then to residents of Forsyth County, and the J. Welch Harriss Scholarships, awarded on the basis of merit and need, first to male students from High Point and then to those from Guilford County. The newly established Braxton Craven Scholarship will be awarded on the basis of merit, first to students from Davidson County, and then to students from the State of North Carolina. The Financial Aid Office will provide additional information to students interested in any of these scholarships.

•Duke's renewed commitment to the arts has given rise to several substantial scholar-ships in recent years. The Mary Duke Biddle Scholarship in Music Composition, a \$2,500 annual award, is available to a member of each entering class and is renewable from year to year as long as the student does satisfactory work. The student applying for this award supplements his application with samples of his musical compositions. Eligibility is

limited to students planning to major in music.

Students who are talented string, woodwind, or piano performers, or who are students of voice, may compete for the A. J. Fletcher awards, based on merit and need. String scholarships will predominate.

•Nursing students should explore the Florence K. Wilson Scholarship and the Marian Sanford Sealy Scholarship. The Lelia R. Clark Scholarship was established in 1971 to cover

tuition and fees for a nursing student, preferably from North Carolina.

• Engineering students may qualify for one of the J. A. Jones Memorial Scholarships, sponsored through the Jones Fund for Engineering. The awards range from a yearly sum of \$500 to \$3,600, depending on the degree of need. The Jones Scholarships are granted for the first year without regard to the student's intended major within engineering, and they are renewable on the same terms for the second year as long as the student does satisfactory work. For the junior and senior years, they are limited to majors in civil engineering.

•United Methodist Scholarships are available on a need basis to Methodist students who have been leaders in their local Methodist Youth Fellowship Groups. Christian Vocation Scholarships are available, also on a need basis, to students preparing to enter full-time religious work. Recipients sign notes which are cancelled when they have entered full-time Christian work following graduation. In many cases, children of ministers in the North Carolina and the Western North Carolina Annual Conferences of the United Methodist Church may be eligible to receive a remission of the tuition charge. Details of eligibility may be found in a brochure prepared by the Office of Financial Aid.

• Beginning in the second semester of their freshman year, cadets are eligible to compete for an Air Force ROTC College Scholarship. This scholarship includes full tuition, books, laboratory fees, and \$100 per month subsistence. The scholarship is awarded on a merit basis and considers academic achievement, leadership potential, and overall perform-

ance.

The NROTC College Scholarship Program provides for four years of tuition, fees, and textbooks at government expense, plus subsistence and summer active duty pay which amounts to approximately \$1,450 per year. Selection for this program is made on the basis of an annual nationwide competition conducted by the Department of the Navy.

For further information regarding all named scholarships, write to University Scholarship Officer, Admissions Office, 614 Chapel Drive, Durham, North Carolina 27706. A brochure describing the financial aid program in greater detail may be obtained from the Office of Financial Aid, 614 Chapel Drive Annex, Duke University, Durham, North Carolina 27706.



Areas of Study

Department titles can often be misleading. A major in Russian, for instance, finds his area of study under the heading Slavic Languages and Literatures; business administration translates into Management Sciences. If your field of interest is not represented in this section as you may have anticipated, write to the Office of Undergraduate Admissions for clarification.

Allied Health Programs

Majors in allied health fields are offered by the Duke University Medical Center. Students who wish to become medical technologists, physician's associates, or pathology assistants should write to the Division of Allied Health, Duke University Medical Center.

Anthropology

Anthropology is a very broad discipline that is divided into primary areas of physical, psychological, and social-cultural anthropology, archaeology and linguistics. Duke's Department of Anthropology provides a comprehensive program of study involving the comparative analysis of human societies and cultures as they are related to man's physical nature and the biological world. Two general courses function as an introduction to anthropological concepts and methods and as a preparation for more specialized studies at an advanced level which focus upon interrelated topics in religion, politics, ecology, psychology, and kinship, or upon area courses that are devoted to ethnographic and theoretical materials on Native Americans, peoples of Africa, Oceania, South Asia, and the Middle East. Advanced students are eligible for graduate level courses, which provide opportunities for library or field research to develop competence in one or more of the subareas mentioned previously.

Students selecting anthropology for career-related purposes will find that an advanced degree is a prerequisite for obtaining a satisfying position, since the competition for such positions is keen. A major in anthropology involving work from a related area of study can provide an incomparable background for graduate work in any discipline that

concerns human behavior.

Art

The general concept of art is divided into subareas of practice and history. Practice, as it is experienced in the studio, takes the form of basic design, printmaking, drawing, sculpture, ceramics, and painting; it is hoped that exposure to one or all of these artistic facets will enable students to recognize any interests and aptitudes that should be de-

veloped for subsequent specialization. The Art Department at Duke does not attempt to provide professional training in specific practical art skills, but places emphasis instead upon fulfillment of a broad and flexible curriculum to which the art experience is a contributing factor.

Art history, as a particular aspect of the historical continuum, merges with other humanistic areas, such as philosophy, religion, and literature. The nature of research methods that are intrinsic to this program of study presupposes the concurrent de-

velopment of language proficiencies.

A student electing the art major concentrates in either art history (8 courses) or in studio (7 courses). The department also offers an honors program in art history which provides the superior student with an opportunity for independent study and research.

Biomedical Engineering

Biomedical engineering involves the application of quantitative engineering methods to medical and biological problems. The major in biomedical engineering is utilized by some students as preparation for medical school. Others eventually undertake careers as practicing biomedical engineers in health-care units such as hospitals, or in fields such as occupational health and safety, environmental engineering, and man-ma-

chine systems design.

The biomedical engineering program at Duke stresses both the use of digital and analog computers in the mathematical design of biological systems, and the development of effective instrumentation and circuitry as devices for regulation of these systems. Five specific biomedical engineering courses must be completed for fulfillment of the major requirements. Basic course work in mathematics, computer science, chemistry, physics, zoology, and engineering sciences is also required to develop the broad educational foundation necessary for study in this field. Students are able to choose twelve of thirty-two courses required for the Bachelor of Science in Engineering degree as electives, with the understanding that a minimum of five of these courses must be taken in the humanities and social sciences.

Students intending to major in biomedical engineering should designate the School of Engineering in their applications for admission to Duke University. Additional information about the study of engineering may be obtained from the Office of Undergraduate Admissions.



Black Studies

The Black Studies Program at Duke is designed to provide instruction and study within the area that is described broadly as the Black American experience. Although intensive or major work is worthwhile and encouraged, departmental course offerings are closely related to many students' primary areas of interest and may thus constitute a useful secondary component of a liberal arts education. The student majoring in Black studies will receive special counseling in planning his course of study and in considering his future vocation.

Botany

The Department of Botany represents a broad spectrum of disciplines with particular strengths in the areas of ecology, systematic plant biology, genetics, and physiology. The University's phytotron (one of two facilities in the Southeast for studying plant growth under controlled conditions), an experimental plot (for local ecological studies), and the Marine Laboratory at Beaufort (for oceanographic studies) are available to students in addition to the laboratory facilities afforded by the Biological Sciences Building. Students majoring in botany on the undergraduate level receive a considerable amount of personal guidance from the Director of Undergraduate Studies, and independent work is stressed. All programs are designed to provide a strong background for advanced work in the field, and careful course selection promotes the development of a versatile biological preparation that is suitable for entry into several other areas. A new interdisciplinary program in environmental studies, an interdisciplinary approach to oceanography, and studies in plant systematics and organismal diversity are examples of possible curriculum options.

Chemistry

Chemistry, as the study of matter, is essential not only to the basic biological and physical sciences, but to biochemistry and the spectrum of paramedical studies as well. Students intending to pursue study at the graduate or professional level in chemistry ordinarily elect courses fulfilling requirements for the Bachelor of Science degree. However, a Bachelor of Arts degree in chemistry is also offered to those students whose courses of study demand only fundamental preparation in this area. In both degree programs courses appear in sequence from general chemistry to the progressively more theoretical fields.

The departmental program stresses course work and research in areas of organic chemistry (the investigation of carbon compounds, chemical change, and synthesis of organic compounds), physical chemistry (the examination of chemical principles in, for example, quantum phenomena, thermodynamics, and chemical kinetics), inorganic chemistry (the investigation of reactions, bonding, and structures of compounds other than carbon), and analytic chemistry (the examination of separation procedures and techniques of measurement and analysis). Independent study, as a final phase of preparation for the Bachelor of Science degree, enables the student to direct his studies toward a specific type of research, with supervision from a member of the department. The student electing the Bachelor of Arts degree may also design similar courses of study in specific areas, but advanced seminars are usually sufficient for completion of this aspect of the program.

Civil Engineering

Civil Engineering is the art of designing, analyzing, and building constructed facilities. Students majoring in civil engineering at Duke are able to pursue one of six specialized programs or a general program that is designed to develop a broad professional background. The six areas of specialization are: environmental engineering—developing systems for decreasing air and water pollution; water resources engineering—using and preserving water resources, including the ocean; geotechnical engineering—designing earth structures and foundations; mechanics and materials engineering—analyzing the behavior of construction materials under load; structural engineering—designing safe

structures such as buildings, bridges, and air frames; and urban engineering—develop-

ing systems for mass transportation, public health and safety, and land use.

The academic program is flexible and progressive, but rigorous enough to prepare graduates for immediate professional practice. The curriculum features a minimum of nine civil engineering courses and a broad preparation in mathematics and the physical sciences. Usually ten of the thirty-two courses required for the B.S.E. degree are relatively free electives, and at least four of these courses must involve work in the humanities and social sciences.

Prospective majors in civil engineering should designate the School of Engineering in their applications. Additional information concerning Duke's programs in engineering may be obtained from the Office of Undergraduate Admissions.

Classical Studies

The languages and literary works of ancient Greece and Rome as well as their artistic, philosophical, and historical developments are central to the program in classical studies at Duke. Students in the program are exposed to varied study options; primary among them are opportunities for economic and historical investigations of specific portions of the ancient world, as well as analysis of ancient literature and architecture.

In order to accommodate the wide range of subjects included in the field itself, the Department of Classical Studies offers a variety of courses on both the introductory and advanced levels. For instance, the study of Greek and Latin may be initiated or continued at Duke under the departmental course structure; introductory work provides a linguistic foundation and functions immediately as an introduction to readings from several major authors, whereas more advanced courses offer study in areas focusing upon single authors or literary genres.

Knowledge of Latin and Greek is not required for enrollment in courses in the department. Small-group learning experiences and independent study are stressed, and

both freshman and upper level seminars are offered.

Computer Science

The digital computer has become an indispensable tool in almost all scientific research and has also assumed a significant role in the study of linguistics and the humanities. The department offers a variety of courses which enables undergraduates to perceive the implications of the computer, to utilize more efficiently the many computer facilities available to them at Duke University, or to prepare for a career in the rapidly expanding field of computer science.

Successful completion of the introductory course (Introduction to Digital Computation) does not demand an extensive background in mathematics; the course is designed for the student who wishes to obtain a fundamental understanding of computer programming, and also serves as a basis for more advanced and theoretical work involving such topics as computer design, numerical analysis, data structures, programming languages,

statistical computation, and computer simulation.

Because the computer science field is broad and closely linked to many other fields, the student majoring in this area is advised to complete a substantial amount of course work in related disciplines.

Economics

The economist investigates the means of producing economic wealth and analyzes conflicting demands for its distribution in order to make clear the consequences of modifying certain institutional arrangements. The introductory courses offered by Duke's Department of Economics constitute, therefore, a development of critical and analytical skills, which are intrinsic to the effective assessment and solution of economic problems as they are related to contemporary social institutions. Advanced courses ordinarily focus upon particular economic problem areas; labor unions, monetary policy, market power, poverty, etc.

Although no particular career goal is emphasized by the department, majors are



usually assisted by faculty in the design of programs that will serve as preparation for graduate study and (eventually) professional competence in the areas of economics or administration. Because the department encourages the integration of the economic discipline within a broad, liberal arts framework, the major can also be utilized by students as preparation for the study of law.

Education

The Department of Education offers programs designed to qualify students for positions as elementary or secondary school instructors. The study of elementary education initially involves extensive analysis of learning theory and patterns of child development. Practical application of learning theory is then encouraged to develop deeper understanding of instructional methods.

The department prepares students as secondary school instructors in the areas of art, English, foreign languages, mathematics, music, the sciences, and social studies. Ordinarily, these students major in the area of their principal interest and elect to take related course work in the Education Department devoting an entire semester during the senior year to courses in designated subject matter and then to student teaching.

Advisers in the Department of Education assist students in planning programs that will fulfill individual needs and establish eligibility for admission to the student teaching program. These programs are also designed to meet the requirements of the state or states in which students desire certification.

Electrical Engineering

Electrical engineering is a broadly based discipline dealing with the process, control, and transmission of information and energy through utilization of the electrical and magnetic forces of nature. Because electricity is the most flexible form of energy available to man, the influence of the electrical engineering profession is pervasive in our technologi-

cal society.

Electrical engineering majors at Duke typically choose programs of study in one of the following areas: communication systems, computer and information processing systems, solid state science, electromagnetics, networks and electronic circuits, control systems, and energy conversion. Secondary interests such as premedicine, prelaw, computer science, management, economics, and social systems may be accommodated within the electrical engineering curriculum through individualized programs of study that emphasize the student's specific professional objectives and academic interests. This is easily accomplished since ten to twelve of the thirty-two courses required for the B.S.E. degree are relatively free electives (with a required minimum of six in the humanities and social sciences). The academic program in electrical engineering demands completion of seven courses in the general area; only two courses are specified, whereas the remaining five are electrical engineering electives.

Prospective majors in electrical engineering should designate the School of Engineering in their admission applications. Additional information concerning the study of en-

gineering is available from the Office of Undergraduate Admissions.

English

The study of literature, which is unquestionably one of the broadest approaches to an education in the liberal arts, provides an opportunity for the synthesis of current literary thought and the concepts presented in the works of past writers. On a more practical level, it is an extensive development of the ability to communicate through the written medium. Literature also stands as an excellent resource for the investigation of human character, and for acquiring a sensitivity to the human condition and its workable values.

Varied course offerings coupled with the size and diversity of the Duke English Department enable the English major to choose from among many alternatives as far as courses, teachers, and classroom formats are concerned. All students majoring in English are required to satisfy patterns of distribution in the department rather than to take specific courses. Usually, individual subject preferences are followed within a wide range of English and American literature, and in such areas as Elizabethan drama or nineteenth century English literature as well as contemporary fiction, poetry, and drama.

The seminar and independent study features of the curriculum afford both beginning and advanced students the opportunity to participate in small group learning experiences. Courses in creative writing, available as early as the freshman year, are taught by mem-

bers of the faculty who are themselves successful authors.

Geology

Geology involves investigation of the earth in terms of its physical processes, composition, structure, economic resources, and history. The demand for trained geologists increases as government and industry display marked concern in matters such as the location of petroleum deposits, the natural pollution of streams, and the prediction of earthquakes. Oceanography, seismology, hydrology, paleontology, and astrogeology are

among the research specialties undertaken by modern geologists.

Courses of special interest to the non-major include Geological Environments and Man, The History of the Earth, and Introductory Oceanography. Two introductory survey courses within the Geology Department are required for the continuation of basic training which is undertaken in areas of minerals and rocks, and/or stratigraphy and structure. Students majoring in geology are advised to expand their courses of study so that training in one or more of the related sciences and mathematics is included. Provision for interdisciplinary majors and student faculty interaction are additional sources of attraction for prospective geology students.

Germanic Languages and Literature

The study of German is concerned with the language, literature, and cultural traditions of Germany, Austria, and German speaking Switzerland. It is, moreover, an attempt to examine the literature of these countries within the historical context of their relative social and political institutions. Although maximum use is made of German in all courses, students mastering the basic skills at the introductory and intermediate levels are able to select courses in which the emphasis is placed on reading and analysis of literary texts. All students above the intermediate level have the opportunity to take part in small-group learning experiences which emphasize active contributions by the participants.

Two language laboratories, a German table, informal coffee hours, and periodic programs arranged by Delta Phi Alpha, the German honorary society, encourage the student's active use of German and bring him into frequent informal contact with members

of the faculty.

The opportunity to study in Germany exists with full credit for approved academic work taken abroad. Graduating majors compete for several scholarships to study at German universities for one year with all expenses paid. Career opportunities may be found in such areas as government service (e.g., State and Defense Departments), exportimport trade, and high school and university teaching.

Health and Physical Education

The physical education departments offer instruction for men and women in a broad variety of activities. Physical assessment and development programs, theory courses,

and opportunities for recreation are also available.

The program in physical education for men offers a number of individual, dual, and team sports as well as sailing and skiing. Though it is not a major area of study, several physical education courses are available as electives for students intending to coach team sports on the secondary school level and for others who find them appropriate. The women's program consists of instructional training in a variety of sports, aquatic activities, and dance. Many of these courses are taught on beginning, intermediate, and advanced levels. Freshmen fulfill the one year requirement by taking the activity courses of their choice, but those men and women who are unable to swim must complete a half-semester of swimming instruction. After the freshman year, activity courses may be elected for quarter-course credit per semester, or they may be taken on a non-credit basis.

Theory courses in physical education are available for students who are interested in recreational leadership or dance, and also for those who are preparing to teach at the elementary school level. Health education courses carrying full course credit are offered on an elective basis for students interested in health affairs and current health problems.

History

The study of history involves the systematic investigation of the organizations of past societies and the patterns of events that shaped those organizations. Thus, training in such study, combined with a knowledge of the various methods of historical investigation, lends itself to deeper understanding of contemporary social and political developments.

The range of subjects offered by the department covers all periods of American history (including Afro-American), European history from classical to contemporary times, Asian, African, Russian, Latin American, and military history, the history of science, technology, and medicine, and the history of women. In all courses, emphasis is placed on encouraging the student to think critically and to master the various techniques of historical investigation through class discussion, lectures, and research.

Discussion sections or seminars add to the variety of learning experiences at every level, from introductory courses in European, non-Western, and American history to advanced seminars. Faculty of all ranks teach both the introductory and the more advanced

courses.

The student majoring in history is urged to broaden his understanding by exploring other subjects. Indeed, the student who desires to combine historical studies with a related discipline, or to develop an interdisciplinary Program II curriculum, is encouraged to do so.

For the student majoring in other subjects, every effort is made to offer courses in history which fit a variety of interests and programs of study.

Management Sciences

The program in management sciences is designed to provide an understanding of businesses and other economic enterprises and their influence on society. Conceptual understanding of, and analytical reasoning related to, problems of modern management are stressed as opposed to job skills. The basic tools of mathematical analysis, information systems, organization theory, and economic theory are combined to develop a fundamental understanding of the role and function of complex business organizations in society.

This liberal arts oriented program provides the foundation for those desiring further study in law, business, or the other social sciences as well as those planning to continue their education as leadership trainees in many organizations. It is possible to combine this program with in-depth studies in other areas of the student's choice, such as mathematics, the natural sciences, or the other social sciences. Provision, too, is made for professional preparation in accounting, including adequate course work to prepare for the Certified Public Accountant examination. Work leading to Graduation with Distinction is available for majors.

Mathematics

Traditionally mathematics is divided into three branches: algebra, analysis, and geometry. Algebra stems from arithmetic and today includes such subfields as linear algebra, polynomials, combinatorial analysis, and number theory, all of which have applications in the social sciences and computer science.

Analysis was initiated by Leibniz and Newton toward the end of the seventeenth century. Here the new and basic concept of a limit was introduced, and it has since proved to be one of the most fruitful in mathematics. Analysis is usually considered the most important branch of mathematics since it is indispensable in physics, engineering, and other natural sciences. Today analysis includes such topics as calculus, differential equations, and complex variables.

Geometry has its origins in the Euclidean geometry studied by the ancient Greeks. Since that time other types of geometries have been developed, although at the same time many topics, geometric in origin, have been absorbed by algebra or analysis. One of the most important subfields of geometry, topology, is fundamental in the study of limits and in establishing the foundations of analysis.

Any student with an interest in the social sciences or the natural sciences should (and probably will be required to) take some mathematics. Normally such a student begins with calculus and proceeds through the calculus sequence. However, any student with insufficient preparation in mathematics should *not* take calculus simply to satisfy the natural science division requirement. If he must take calculus he is advised to take a precalculus course before entering Duke in the fall.

The Director of Undergraduate Studies in the department will provide further information to interested students.

Mechanical Engineering and Materials Science

Mechanical engineering is the application of technology to the generation, transfer, and control of mechanical forces, energy, and states of matter, whereas materials science involves the development of substances with the particular combinations of mechanical, chemical, and electrical properties necessary to satisfy certain technological demands. Although the Department of Engineering and Materials Science attempts to provide majors with a broad preparation in the general area, five specific topics of study are em-

phasized in areas of automatic control and systems dynamics, materials science and engineering, design of mechanical systems, propulsion and energy conversion, and thermal and fluid sciences. The program also is sufficiently flexible to encourage students to emphasize interdisciplinary areas such as environmental quality and control, industrial administration and business management, ocean engineering, transportation systems

engineering, and urban engineering.

Eight courses in mechanical engineering and materials science are required of majors in conjunction with extensive exposure to mathematics and the physical sciences. Twelve or thirteen of the thirty-two courses required for the B.S.E. degree are relatively free electives with a required minimum of five in the humanities and the social sciences. Senior projects and undergraduate laboratory seminars are available in the areas of systems dynamics, materials development, thermal and fluid systems, and systems response and control.

Prospective majors in mechanical engineering and materials science should designate the School of Engineering in their admission applications. Additional information concerning the study of engineering at Duke is available from the Office of Admissions.

Music

The Department of Music at Duke offers a broad curriculum instructed by a faculty of artists and teachers who are also performers, composers, and historians. The low ratio of students to faculty affords the opportunity for sustained individual attention through private and independent study. Class lectures and seminars are supplemented by conferences with visiting scholars, composers, and performers. Many courses and activities

sponsored by the department are available to non-majors as well.

Students majoring in music are encouraged to achieve a balanced background in three divisions of music study—theoretical analysis and composition, music history, and performance—and to emphasize study in one of these areas in later phases of their work. In theory and composition, techniques of orthodox and electronic composition are taught by composers, and performances of student works are regularly scheduled. Music history aims at the evaluation of the music styles of Western civilization through reference to the artist and his era. This may be supplemented by the study of non-Western and primitive music. For students interested primarily in performance, private instruction is available in voice, piano, organ, and orchestral instruments. Opportunities for both solo and ensemble performance experience are abundant.

Nursing

Standard course requirements in the first two years of the School of Nursing program include two semesters of a laboratory science course (usually biology or chemistry); a freshman English course; three courses in the social science areas of psychology, anthropology, and sociology; a basic statistics course; and a two-semester human ecology course. Two semesters of physical education must be completed within the first two years. The remaining courses needed to complete the sixteen-course sequence for the lower division may be elected by the student (with the assistance of an academic adviser) in accordance with specific interests.

Although space is extremely limited, students are occasionally admitted for transfer into the nursing program. These students must make provision for meeting the human ecology requirement and are encouraged to seek advice concerning all aspects of transfer early in their planning. Courses being considered for transfer must be approved by Duke.

The focus of the junior and senior years is on the nursing phase of the curriculum. The third year is devoted largely to the broad role of nursing in health and illness while the senior year provides increased depth in both these areas. Required and elective courses in nursing are offered, including independent study. Due to the flexible curriculum, students may develop an area of concentration within nursing or develop a second major in the humanities, behavioral sciences, or natural sciences. Individually planned experiences provide the student with opportunities to practice skills, develop an understanding of the entire nursing process, and assume those characteristics which mark the professional nurse.

Questions should be directed to the Office of the Dean of the School of Nursing.

Philosophy

Philosophy involves illumination and, in some cases, criticism of the most fundamental concepts in human thought. The academic program provides opportunities for concentration in four areas: metaphysics, epistemology, ethics, and logic. In metaphysics, these are such basic concepts as mind, matter, and real existence, and in epistemology, or the theory of knowledge, such concepts as rational belief, truth, evidence, and justification. The study of ethics involves the examination of value, goodness, and obligation, and logic deals with the concepts and principles involved in any argument or proof.

A study of philosophy does not in itself lead directly to any career except the teaching of philosophy. But students planning careers in other fields often major in philosophy because of its value in clarifying the underlying assumptions of other fields of endeavor. Many law schools encourage a major in philosophy, for example, for its development of

critical and analytical thought.

There are two types of courses included in the philosophy curriculum—systematic and historical courses. The former are more directly problem-oriented, whereas the latter approach philosophical problems in terms of the thought of some of the great thinkers of the past and present. Many courses of the former type, however, such as the standard Introduction to Philosophy, also involve a certain amount of reading in the philosophical classics.

Physics

Physics is one of the oldest of the natural sciences; the theories of relativity and quantum mechanics have not only altered the direction of physics but have also changed man's philosophical ideas of nature. The invention of the transistor has produced a revolutionary change in the electronics and computing industries; the impact of the laser may prove to be just as revolutionary. The study of elementary particles is providing new in-

sights into the nature of matter.

At the introductory level, the Department of Physics offers a course to students who wish to learn about the ideas and discipline of physics generally, and another to those who will need a more intensive study of the field either for a major in physics or in some other science. The undergraduate majoring in physics does not specialize in a given field of physics, but receives an extensive training in several basic areas. The sequence of courses is introductory physics, modern physics, mechanics, thermodynamics and kinetic theory, electromagnetic theory, optics, quantum mechanics, and an advanced physics laboratory.

At all levels there exists the opportunity to become aware of, and perhaps affiliated with, the research being carried out in the fields of nuclear physics, elementary particle physics, the structure of molecules and solids using both microwave and optical techniques, the properties of matter at temperatures approaching absolute zero, and theoreti-

cal physics.

Political Science

The Department of Political Science seeks to convey an understanding of the philosophies, practices, and problems of government and politics. In pursuing this objective a variety of materials and methods is used; treatment of the subject may be from a historical, legal, institutional, philosophical, empirical, or quantitative perspective.

The topic that is most fundamental to political science concerns human behavior within the political realm; the collection of empirical data, and the examination of decision-making processes within the context of normative judgments influencing political decisions, complement the study of such behavior.

The major in political science is useful to those students interested in careers in law, politics, business, journalism, teaching, foreign service, and government employment.

Majors are advised to begin with an introductory course, the American Political System, and then to proceed with advanced work in the comparative study of political systems, the study of international politics, or in political theory. These students must also take a total of eight courses in the department, including at least two graduate courses or

senior seminars, and at least one course in three of the four basic areas of the curriculum (political theory, American politics, comparative politics, and international relations). Opportunities are also available for independent study and internship credit.

Psychology

As an area of study, psychology blends characteristics common to research methods in both the natural and social sciences. Specific possibilities for research include such diverse topics as: brain-behavior relationships in animals and man, biological and social origins of motivation, the development of traits and attitudes, and the conditions and

consequences of social influence.

The major in psychology does not prepare a student for immediate practical work in the field. Rather, the chief objective of the undergraduate program is to acquaint students with principles and methods, and to provide them with some understanding of the broad range of psychological inquiry. The Department of Psychology seeks to recognize the diversity of content by offering four first-level lecture courses which are intended to give beginning students an opportunity for practical experience with specific fields and methods of investigation. Available at the intermediate and advanced levels are lecture courses as well as a variety of laboratory courses involving the design, and often the execution, of experiments in specific problem areas. The latter are taught in small groups of twelve to twenty students. For the capable major who seeks intensive involvement with special problems in research and theory, opportunity for study is available in group tutorials, graduate-undergraduate seminars, and independent work under faculty supervision.

Public Policy Studies

Public policy is the formal product of governmental action. The academic study of public policy involves analysis both of the process by which government organizations design and implement particular policies, and of the effects which those policies have on

society.

Through a series of core courses on economic and political analysis, statistical methods, and normative theory, majors in public policy studies acquire a set of analytical tools. They gain first-hand experience in utilizing these tools through one of several programs offered by the Institute of Policy Sciences and Public Affairs. They may take, for example, a multidisciplinary internship course, which combines two semesters of classroom study of a particular problem area with a summer internship of work in an organization developing policy for that area. Internship courses deal with communication, health, and poverty in the South. Students are encouraged to develop a strong program of related course work in other departments.

Religion

If entering students have had courses of instruction in religion, they will, very likely, have had them in contexts quite different from those provided by the Department of Religion at Duke. Rather than to inculcate or discipline faith or belief, the function of the department is to promote the study of religious beliefs and the problems from which they arise. This means that work in religion supports and is complemented by work done in other departments of the University, especially in the humanities and the social sciences.

The religion faculty attempts to clarify the importance of religion to a period of history or to some form of human experience. It attempts as well to increase in students their appreciation for matters of religion and their ability to employ appropriate methods for un-

derstanding them.

The nature of the material and the range of approaches allow the major in religion a breadth of choices for concentration, providing him with a basis for entering either professional or graduate study in religion, professional training, or advanced work in some other field. Non-majors will find courses offered by the department that are related to work they are doing in their own major fields.

The principal areas of work within the department are these: Biblical studies, the history of Christianity and Judaism, the history and phenomenology of religions, religion

and social sciences, and religion and the humanities. The department regularly offers seminars and courses open to freshmen which lead to more advanced work within these several areas.

Reserve Officers Training Program

The Department of Aerospace Studies (AFROTC) functions as a regular department of instruction. It provides to selected college men and women a professional education leading to a commission as a second lieutenant in the Air Force Reserve. Freshmen and sophomores enroll in the General Military Course and, upon its successful completion, may apply for continuation in the Professional Officer Course. A provision exists for interested cadets to request delay of active duty for the purpose of attending graduate school subject to the approval of Air Force Headquarters.

Qualified freshmen and sophomores who earn a *C* + average may apply for an Air Force Scholarship during the spring semester. At Duke this amounts to approximately \$3,700 annually and is effective beginning in the fall of the following school year. No addi-

tional active service commitment is involved.

Seniors who go on to pilot duties will participate in a 25-hour Flight Instruction Pro-

gram using light aircraft.

Students wishing to learn more about this program should address their inquiries to the Professor of Aerospace Studies, Duke University. Advanced registration may be made in the manner prescribed by the University for other courses, or by contacting the Department of Aerospace Studies, Room 138, Social Science Building, during Freshman Week.

The Department of Naval Science offers a course of professional studies, complementary to other departmental curricula, leading, upon graduation, to a commission in the Navy or Marine Corps or their Reserves. Students selected in the annual national competition are enrolled in the NROTC College Scholarship Program which provides full tuition, books, and \$100 monthly allowance for up to four years. Other students select the College Program which provides only the \$100 monthly allowance in the junior and senior years. Provision exists for delay of active duty to attend graduate school. For additional details see the section on Financial Information and write to the Director of Undergraduate Studies, Department of Naval Science.

Romance Languages

When a student elects to concentrate in French or Spanish, he has decided to study in depth two important aspects of a particular culture—the language and the literature. At Duke he may elect either a language or literature major. Each channel will require courses in both language and literature, but in different proportions. Skill in the use of the language will provide insights and appreciation of literary works, and conversely acquaintance with literary works will strengthen the language skills. Both language and literature will create appreciation and sympathy for the people whose culture they represent.

The study of a national literature must be made within the perspective of the humanities and history. It is important, then, to balance the major literary program by incorporating into it related study in history, fine arts, and other literature. In the language major

related study is desirable in other languages and in linguistic theory.

Courses in Italian and Portuguese are offered by the department although neither may qualify as a major area of study.

Students may take advantage of Duke's association with the Vanderbilt Abroad pro-

grams or the Junior Year Abroad programs of other colleges and universities.

In the senior year, especially qualified students may pursue independent studies leading to Graduation with Distinction. Career opportunities for Romance language majors include such areas as government service, international agencies, export-import trade, international transportation, social service in minority areas, libraries, museums, and high school and college teaching.

Slavic Languages and Literature

Russian, a language spoken by over two hundred million people in the Soviet Union, ranks with English and Chinese as one of the major world languages. A knowledge of the language is indispensable in many positions in the federal government, private business, library work, and research institutions dealing with social or natural sciences. The recent political and economic rapprochement between the United States and the Soviet Union promises to open up many new areas in which Russian specialization will be at a premium. There is also a growing need for qualified Russian teachers on the high school and college level.

Practical advantages aside, the study of Russian literature is richly rewarding as an esthetic and cognitive experience. The body of Russian literature is second to none in

quality and serves to increase the student's understanding of Soviet culture.

Despite the popular misconception concerning the special difficulties of Russian, the language is a member of the Indo-European family of languages and is thus related to English with which it shares many cognates. The Russian alphabet can be mastered in about two weeks; Russian syntax is much less complicated than German or even English.

Russian majors take four years of language instruction including reading in the original Russian of literary and historical texts in the higher level language courses. A variety of courses on individual writers and literary periods exists in translation for majors and nonmajors alike, although majors are required to do part of the reading in Russian in these courses. The emphasis is increasingly placed on the more relevant periods of the nineteenth and twentieth centuries. In addition to Russian literature, courses in Polish literature, the second most important Slavic literature, are offered in English translation.

Sociology

Sociology is concerned with the description, analysis, and explanation of those conditions underlying the diverse network of social patterns. By utilizing ideas and theories in conjunction with systematically collected information, sociologists attempt to develop generalizations involving such matters as race relations, new organizations of communities, and deviations from normal social behavior.

A general course introduces students to the concepts and methods of sociological research while preparing them for more concentrated study in specific areas such as industrial relations, urban studies, the family, mass communications, and collective behavior. Courses in demography, social psychology, social organizations, and the analysis of the

life cycle reflect differing possibilities for the investigation of these topics.

The Department of Sociology offers a varied program to undergraduates, and many majors do their work in the department as preparation for graduate study in the social sciences, or as a background for professional training in fields such as law, social administration, and health services. Others find that it provides direct access to positions with local, state, and federal governments, community action and development programs, and other work in applied sociology.

The department also provides its majors with opportunities for acquiring basic skills necessary for sociological research. Courses are offered in sociological theory, methodology, and statistics, and advanced undergraduates are encouraged to take part in one or more of the ongoing research projects within the department. Majors who are studying for

University honors may conduct their own individual research projects.

Zoology

The complex nature of modern biology is reflected in the diversity of programs which are open to zoology majors. Students who are primarily interested in obtaining a broad, basic training in biology will find that a variety of courses in genetics, ecology, morphology, physiology, and cell and developmental biology is available.

Other students may specialize in such interdisciplinary subjects as physiological ecology, biochemical genetics, biophysics, and marine biology, or more strictly zoological subjects such as animal behavior and vertebrate biology. At the more advanced levels,

students are encouraged to become involved in research tutorials and other special projects in their areas of specific interest. Junior and senior students may apply for a semester's study in the interdisciplinary program in the marine sciences at the Duke University Marine Laboratory in Beaufort, North Carolina.

Most of the recent progress in biology has come, not from the expansion of traditional fields of botany or zoology, but from the incorporation of ideas and techniques derived from the physical sciences and mathematics. As part of their biological training, most zoology majors need to become familiar with at least elements of calculus, physics, and organic chemistry. The Zoology Department recommends introductory courses in these subjects and frequently recommends additional work in the appropriate areas.

With the permission of the Director of Undergraduate Studies in Zoology, students who score 3 or better on the CEEB Advanced Placement Program Examination in Biology, or who complete two years of high school biology may by-pass the introductory course.

Special Programs

The Program in Canadian Studies is designed to provide the student with an understanding of Canada and its problems and prospects. It may be taken as part of a major in history and political science, as a supplement to any other major, as part of an interdepartmental concentration, or under Program II.

Comparative Area Studies in Asia, Africa, and Latin America is a new interdisciplinary major which includes extensive coursework in a particular geographic area and its language, less extensive work in a second geographic area, and additional study in an appropriately related discipline. An interdisciplinary seminar in the senior year is designed to bring together a number of themes for comparative treatment.

Comparative Literature is the study of the interrelationships of national literatures through the comparison of significant authors, ideas, currents, themes, and literary genres in different ages and cultures. The Committee on Comparative Literature assists students in creating responsible programs, although all majors take introductory and advanced courses in comparative literature and read extensively, in the original, the literature of a foreign language. Reading knowledge of a second foreign language is required.

The Marine Sciences Program makes it possible for qualified juniors and seniors to live and study at the Duke University Marine Laboratory, Beaufort, North Carolina, during the spring term. The semester program consists of two courses and a seminar in addition to independent research. The design of the program permits a student to continue study at the Marine Laboratory during the summer either by participating in senior-graduate courses or by continuing the independent studies initiated during the spring term.

The University Program in Genetics provides a coherent course of study in all facets of biology related to genetics. Students interested in preparation for advanced work in genetics or wishing to take an interdisciplinary major in this area may do so with departmental approval.

Asian and African Languages—Chinese, Japanese, Hindi-Urdu, and Swahili—are offered for course credit, although no major is available in the field.

Linguistics courses may be taken as electives by advanced students, although no major is offered in the field.

The Program in Medieval and Renaissance Studies, an interdisciplinary major, is designed to provide the student with a well-rounded understanding of the historical, cultural, and social forces that shaped the medieval and Renaissance periods. The program is divided into four areas of study: fine arts (art and music); history; language and literature (French, German, Greek, Italian, Latin, and Spanish); and philosophy-religion.



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School of Law





Bulletin of Duke University

The School of Law

1975-1976

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Calendar of the Law School

1975

| | 1973 |
|---------------|--|
| August 18 | Monday, 8:30 a.m12:30 p.m.—Registration for all students Monday, 8:00 a.m.—Classes begin for second- and third-year students Monday, 2:00 p.m5:00 p.m.—Orientation for first-year students |
| 19 | Tuesday, 9:00 a.m.—Classes begin for first-year students |
| ovember 26 | Wednesday, 6:00 p.m.—Thanksgiving holidays begin |
| ecember | |
| 1 3 | Monday, 8:00 a.m.—Classes resume Wednesday, 6:00 p.m.—Fall semester classes end for second- and third-year students |
| 6 | Saturday, 6:00 p.m.—Fall semester classes end for first-year students |
| 8 | Monday, 9:00 a.m.—Fall semester examinations begin for second- and third-year students |
| 11 | Thursday, 9:00 a.m.—Fall semester examinations begin for first-year |
| 20 | students Saturday, 6:00 p.m.—Fall semester examinations end |
| | 1976 |
| January | |
| 2 | Friday, 8:00 a.m.—Spring semester classes begin for second- and third-year students |
| 5 | Monday, 9:00 a.m.—Spring semester classes begin for first-year students |
| March | |
| 6 | Saturday, 6:00 p.m.—Spring vacation begins |
| 15 | Monday, 8:00 a.m.—Classes resume |
| April | |
| 22 24 | Thursday, 6:00 p.m.—Spring semester classes end Saturday, 9:00 a.m.—Spring semester examinations begin for third-year |
| 24 | students |
| 26 | Monday, 9:00 a.m.—Spring semester examinations begin for first- and second-year students |
| May | |
| 4 | Tuesday, 6:00 p.m.—Spring semester examinations end for third-year |
| 6 | students Thursday, 6:00 p.m.—Spring semester examinations end for first- and |
| , | second-year students |
| 8 | Saturday, Commencement begins |
| 9 | Sunday, Commencement |



University Administration

Terry Sanford, J.D., LL.D., D.H., L.H.D., D.P.A., President

John O. Blackburn, Ph.D., Chancellor

Frederic N. Cleaveland, Ph.D., Provast

Charles B. Huestis, Vice President for Business und Finonce

William G. Anlyan, M.D., Vice President for Heolth Affoirs

Juanita M. Kreps, Ph.D., Vice President

J. David Ross, J.D., Vice President for Institutional Advancement

Victor A. Bubas, B.S., Vice President for Community Relotions

Stephen Cannada Harward, A.B., C.P.A., Treasurer ond Assistant Secretory

J. Peyton Fuller, A.B., Assistant Vice President and Cantraller

Harold W. Lewis, Ph.D., Vice Provost und Deon of Faculty

John C. McKinney, Ph.D., Vice Provost and Dean of the Graduote School

John M. Fein, Ph.D., Vice Pruvost and Dean of Trinity College of Arts and Sciences

Ewald Busse, M.D., Associote Provost and Director of Medical and Allied Health Education

Stuart M. Sessoms, M.D., Director of Duke Haspitol

Frederick C. Joerg, M.B.A., Assistant Provost for Academic Administration Anne Flowers, Ed.D., Assistant Provost far Educational Program Development

William J. Griffith, A.B., Assistant Provost and Deon of Student Affoirs

Joel L. Fleishman, LL.M., Vice Choncellor for Public Policy Education und Reseurch; Director

of Institute far Policy Sciences and Public Affairs

Benjamin Edward Powell, Ph.D., Librariun

William E. King, Ph.D., University Archivist

Clark R. Cahow, Ph.D., University Registror and Director of Undergroduate Admissions

Olan Lee Petty, Ph.D., Director of the Summer Session

Rufus H. Powell, LL.B., Secretary of the University

Charles Linn Haslam, J.D., University Counsel

Law Faculty

Anthony J. Bocchino, A.B., J.D., Assistant Professor of Law

A.B. 1969, Bucknell University; J.D. 1972, University of Connecticut, Lecturer in Law and Co-Director of Legal Clinic, University of Connecticut, 1972-1973; Visiting Professor of Political Science, Clark University, spring, 1973; Visiting Professor of Law, University of North Carolina, summer, 1974. Instructor in Law and Graduate Fellow in Clinical Education, Duke University, 1973-1974; Assistant Professor of Law and Director of Clinical Studies, since 1974.



William D. Caffrey, B.S., M.A., J.D., Adjunct Professor of Low B.S. 1950, Indiana State University; M.A. 1954, George Washington University; J.D. 1958, Duke University. General practice, 1958 to date; faculty, American Bar Association National Institute for Trial Advocacy, Boulder, Colorado, summer, 1973, Reno, Nevada, summer, 1974, Adjunct Professor of Law, Duke University, since 1968.



George C. Christie, A.B., J.D., S.J.D., Diploma in International Law, Professor of Low

A.B. 1955, J.D. 1957, Columbia University; S.J.D. 1966, Harvard University; Diploma in International Law, 1962, Cambridge University, General practice, 1958-1960; Ford Fellow, Harvard Law School, 1960-1961; Fulbright Scholar, Cambridge University, 1961-1962; Associate Professor of Law, University of Minnesota, 1962-1965, Professor of Law, 1965-1966; Visiting Professor of Law, University of Michigan, summer, 1970; Assistant General Counsel for the Near East and South Asia, Agency for International Development, 1966-1967; Board of Editors, American Journol of Legol History; member, American Law Institute, Professor of Law, Duke University, since 1967; on leave, spring, 1975.



Walter E. Dellinger III, A.B., LL.B., Professor of Law and Associote Dean

A.B. 1963, University of North Carolina; LL.B. 1966, Yale University. Associate Professor of Law, University of Mississippi, 1966-1968; Law Clerk to Associate Justice Hugo L. Black, United States Supreme Court, 1968-1969; Visiting Professor of Law. University of Southern California School of Law, 1973-1974; Consultant and Draftsman, North Carolina Criminal Code Commission, since 1971. Associate Professor of Law, Duke University, 1969-1972; Professor of Law, since 1972; Associate Dean, since 1974.



Deborah A. DeMott, B.A., J.D., Assistant Professor of Low

B.A. 1970, Swarthmore College; J.D. 1973, New York University; Articles and Book Review Editor. New York University Law Review. Law Clerk to The Honorable Arnold Bauman, Southern District of New York, 1973-1974; general practice, 1974-1975. Assistant Professor of Law, Duke University, since 1975.



Robinson Oscar Everett, A.B., LL.B., Professor of Low

A.B. 1947, LL.B. 1950, Harvard University. Assistant Professor of Law, Duke University, 1950-1951; Military Service, Legal Officer in Air Force, 1951-1953; Commissioner of the U.S. Court of Military Appeals, 1953-1955; general practice, since 1955; U.S. Senate Subcommittee on Constitutional Rights of the Committee on the Judiciary, Counsel, 1961-1964, Consultant, since 1966; Commissioner on Uniform Laws, since 1962; member of American Law Institute, since 1966. Visiting Associate Professor of Law, Duke University, 1956-1961; Adjunct Professor of Law, 1961-1966; Associate Editor, Law and Contemporary Problems, 1967-1974; Professor of Law, since 1967.



Joel L. Fleishman, A.B., J.D., M.A., LL.M., Professor of Law and Public Policy Sciences

A.B. 1955, J.D. 1959, M.A. 1959, University of North Carolina at Chapel Hill; LL.M. 1960, Yale University. Assistant to the Director, Walter E. Meyer Research Institute of Law, 1960-1961, Yale Law School; Legal Assistant to the Governor of North Carolina, 1961-1965; Director, 1965-1967, Yale Summer High School; Associate Provost for Urban Studies and Programs, Yale University, 1967-1971; Associate Chairman, Center for the Study of the City and Associate Director for Program Development, Institute of Social Science, Yale University, 1969-1971. Professor of Law and Public Policy Sciences, Director, Institute of Policy Sciences and Public Affairs, and Vice Chancellor for Public Policy Education and Research. Duke University, since 1971.



Kazimierz Grzybowski, M.LL., D.LL., S.J.D., Professor of Low and Political Science

M.L.L., 1931, Doctor of Law and Political Science, 1934, University of Lwow; S.J.D. 1933, Harvard University. Associate Professor, School of Law and Graduate School of Diplomacy, University of Lwow, 1936-1939; Judge of the District Court of Lwow; Military Service, 1939-1948; Editor, Law Library, Library of Congress, Washington, D.C., 1951-1960; Consultant, Social Science Division, Rand Corporation, Santa Monica, California, 1960-1962; Visiting Professor, Michigan Law School, 1961-1962; Visiting Professor, Yale Law School, 1962-1963; Visiting Professor, Leiden University, Leiden, The Netherlands, 1963-1964; Visiting Professor of Law and Senior Research Associate, Rule of Law Research Center, Duke University Law School, since 1964.



C. L. Haslam, A.B., J.D., University Counsel and Adjunct Professor of Law

A.B. 1965. Princeton University; Certificate of Advanced European Political Studies 1966, College of Europe; J.D. 1969, Duke University. Research Scholar, The Hague Academy of International Law, 1968; Assistant Professor of Political Science, Virginia Polytechnic Institute and State University, 1969-1972; Associate Secretary and Associate Counsel, American Association of University Professors, 1972-1974. University Counsel, Duke University, since 1974; Adjunct Professor of Law, spring, 1976.



Clark C. Havighurst, A.B., J.D., Professor of Law

A.B. 1955, Princeton University; J.D. 1958, Northwestern University. Military Service. 1958-1960; Research Associate, Small Business Studies, Duke University. 1960-1961; general practice, 1961-1964; Visiting Associate Professor of Law, Stanford University, spring. 1968; Visiting Professor of Law, Northwestern University, spring. 1970; Editor. Law and Contemporary Problems, 1965-1970; Scholar in Residence, Institute of Medicine (National Academy of Sciences), 1972-1973; Director, Program on Legal Issues in Health Care, since 1969. Associate Professor of Law, Duke University, 1964-1968; Professor of Law, Since 1968.



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B.A. 1949. J.D. 1951. University of Iowa. Trial Attorney, U.S. Internal Revenue Service, 1951-1954; general practice, 1954-1967; Department Editor, *Journal of Taxation*, since 1963. Professor of Law, Duke University, since 1968; on leave, 1975-1976.



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B.S. 1961, North Carolina Agricultural and Technical State University; J.D. 1964, Duke University School of Law. Captain, U.S. Air Force, 1965-1968; IAG Officer, 1965-1968; Assistant District Attorney, Superior Court of Guilford County, 1968-1969; private practice, since 1968; member, North Carolina Bar Association Penal System Study Committee; member, Task Force on Apprehension and Suppression for the North Carolina Law and Order Committee; member, American Bar Association Section on Individual Rights—Subcommittee on Equal Opportunity Housing; member, Drug Abuse Committee of the Section of Criminal Law of the American Bar Association; Vice Chairman, School Board of Greensboro, North Carolina, Adjunct Professor of Law, Duke University, since 1973.



David L. Lange, B.S., LL.B., Protessor of Law, Professor of Law and Public Policy Sciences, and Chairman, Center for the Study of Communications Policy

B.S. 1960. LL.B. 1964. University of Illinois. Production Coordinator. Television-Motion Picture Department. University of Illinois. 1959-1961; General Counsel, Mass Media Task Force. National Commission on the Causes and Prevention of Violence. 1968-1969; private practice. 1964-1971; Visiting Associate Professor of Law. Northwestern University School of Law. summer. 1972. Associate Professor of Law. Duke University. 1971-1974; Professor of Law. Professor of Law and Public Policy Sciences, since 1974; Chairman of the Center for the Study of Communications Policy, since 1974.



Arthur Larson, A.B., M.A., B.C.L., J.D., D.C.L., LL.D., L.H.D., James B. Duke Professor of Low and Director of Rule of Low Research Center

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Betsy Levin, A.B., LL.B., Associote Professor of Law

A.B. 1956. Bryn Mawr College; LL.B. 1966. Yale University; Topics Editor. Yole Law Journol. Research Geologist. U.S. Geological Survey. 1956-1966; Law Clerk to Judge Simon E. Sobeloff, U.S. Court of Appeals for the Fourth Circuit. 1966-1967; White House Fellow and Special Assistant to Ambassador Arthur J. Goldberg, U.S. Mission to the United Nations, 1967-1968; Senior Research Staff. The Urban Institute, 1968-1970; Director of Education Studies. The Urban Institute, 1970-1973; Guest Lecturer in Law, Yale Law School, spring, 1970; Adjunct Professor of Law, Georgetown University Law Center, 1970-1973. Associate Professor of Law, Duke University, since 1973.



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Charles H. Livengood, Jr., A.B., J.D., Professor of Law

A.B. 1931, Duke University; J.D. 1934, Harvard University. General practice, 1934-1940, 1945-1948; Regional Attorney for the Seventh Region, Wage and Hour Division, U.S. Department of Labor, 1940-1941; Chief of the Wage-Hour Section, Office of the Solicitor of Labor, 1941-1942; Visiting Professor of Law, University of North Carolina, summer, 1948, 1967-1968, George Washington University, summer, 1949, 1956; Fulbright Lecturer, University of Sydney, Australia, 1958-1959; member, American Law Institute, since 1947; Consultant, U.S. Senate Subcommittee on Labor-Management Relations, 1950; Associate Editor, Journal of Legal Education, 1951-1952; public member, Wage Stabilization Board, Region III, 1952-1953; member, National Academy of Arbitrators, since 1953; member, North Carolina General Statutes Commission, since 1966, Chairman, since 1970; Secretary, Section of Labor Relations Law, American Bar Association, 1967-1968. Lecturer in Law, Duke University, 1946-1948; Associate Professor of Law, 1948-1951; Professor of Law, since 1951.



Pamela G. Luther, A.B., J.D., Assistant Professor of Law A.B. 1970, University of North Carolina; J.D. 1973, Duke University: Order of the Coif, Articles Editor, Duke Low Journal. General practice, 1973-1975. Assistant Professor of Law, Duke University, since 1975.



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A.B. 1938, J.D. 1940, Louisiana State University; J.S.D. 1949. Yale University; S.J.D. 1954, Harvard University. Associate Professor of Law. University of Mississippi, 1945-1946, Professor of Law, 1946-1947; Acting Dean and Professor of Law, Walter F. George School of Law, Mercer University, 1947-1948, Dean, 1947-1956; Professor of Law. Vanderbilt University, 1956-1959; member, Board of Editors, American Bar Association Journal, since 1971; member. Association of American Law Schools Executive Committee, 1969-1970; Visiting Professor of Law, New York University, 1957-1958; Editor, Corporote Practice Commentator, since 1959; Visiting Professor of Law, University of Michigan, summer, 1965, University of Minnesota, fall, 1965; Visiting Alumni Professor of Law, University of Minnesota, winter and spring, 1973. Professor of Law, Duke University, since 1959; Dean. School of Law, 1966-1968; James B. Duke Professor of Law, Duke University, since 1972; on leave, spring, 1975.



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A.B. 1948, J.D. 1950, University of North Carolina, Military Service, 1942-1946; Representative, North Carolina General Assembly, 1955-1957; member, North Carolina General Statutes Commission, 1956-1960; member, the Fourteenth Judicial District Bar, President, 1969-1970; member, the North Carolina and American Bar Associations, member, North Carolina State Bar, Councilor, since 1970; member, American Judicature Society, Adjunct Professor of Law, Duke University, since 1972.



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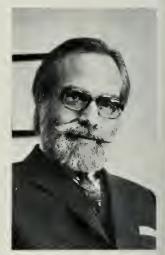
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B.S. 1963, Stevens Institute of Technology; LL.B. 1966, University of Virginia Law School; Editorial Board, Virginia Law Review; diplome, L'Institut des Hautes Etudes International, Geneva, Switzerland, Harriman Fellow, 1966-1967; private practice, 1968-1971; Special Counsel to the Undersecretary of the Treasury, 1971-1972; Consultant, U.S. Department of Treasury and U.S. Department of Housing and Urban Development Associate Professor of Law, Duke University, 1972-1974; Professor of Law, since 1974; on leave, 1974-1975.



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B.A. 1955, University of Southern California; J.D. 1958, Stanford University; Certificate, Hague Academy of International Law, 1961. California Department of Justice, 1958; U.S. Department of Justice, 1958-1959; Assistant Professor, Ohio State University College of Law, 1959-1961. Associate Professor, 1961-1964, Professor, 1964-1965; Visiting Associate Professor of Law, Duke University, spring. 1964, University of California at Los Angeles, summer, 1964; Senior Fellow, Yale Law School, 1964-1965; faculty, Orientation Program in American Law, Princeton University, summer, 1967; Visiting Professor of Law. University of Mississippi, summer, 1968, Stanford University, spring, 1969, University of Denver Law Center, summer, 1969, University of Pennsylvania, spring, 1973; American Civil Liberties Union National Board of Directors, since 1970; President, American Association of University Professors, since 1974. Professor of Law, Duke University, 1965-1973; William R. Perkins Professor of Law, since 1973.



James C. Wallace, B.S., B.A., J.D., M.A., M.S.P.H., Visiting Professor of Low

B.S. 1944, B.A., J.D. 1947, M.A. 1957, M.S.P.H. 1974, University of North Carolina. Lecturer in History, Duke University, 1962-1963, Instructor in History, 1963-1964; Assistant Professor of Social Studies, North Carolina State University, 1964-1967, Associate Professor of Social Studies, 1967-1970, Associate Professor of University Studies, 1970-1973, Professor of University Studies, since 1973; Visiting Professor of Law, University of North Carolina, fall, 1973, Visiting Professor of Law, Duke University, spring, 1974, spring, 1975, spring, 1976.



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A.B. 1965, Illinois Wesleyan University; J.D. 1968, Duke University; Order of the Coif. Law Clerk to The Honorable Walter V. Schaefer, Supreme Court of Illinois, 1968-1969; Editor, Law and Contemparary Prablems, 1970-1973; American Developments Editor, Jaurnal of Business Law (London), 1969-1973; Visiting Professor of Law, University of California at Los Angeles, spring, 1974. Associate Professor of Law, Duke University, 1972-1973; Professor of Law, since 1973.



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A.B. 1917, Duke University, Duke University Law School, 1919-1921; B.A. (Juris) 1923, B.C.L. 1924, M.A. 1928, Oxford University. General practice, 1924-1927; member, North Carolina House of Representatives, 1927; Legal Attaché, American Embassy, Rome, 1950; Visiting Professor of Law, University of North Carolina, summer, 1951, 1955; Visiting Professor of Law, University of Houston, spring, 1957. Professor of Law, Duke University, 1927-1966; Professor Emeritus of Law, since 1966.

John S. Bradway, A.B., A.M., LL.B., LL.D., Professor Emeritus of Law

A.B. 1911, A.M. 1915, LL.D. 1957, Haverford College; LL.B. 1914, University of Pennsylvania. General practice, 1914-1929; Legal Aid Society of Philadelphia, 1914-1920; Chief Counsel, Philadelphia Legal Aid Bureau, 1920-1922; Secretary, National Association of Legal Aid Organizations, 1923-1940, President, 1940-1942; Visiting Professor of Law and Director of the Legal Aid Clinic, University of Southern California, summer, 1928; Professor of Law and Director of the Legal Aid Clinic, University of Southern California, 1929-1931; Vice President, North Carolina Bar Association, 1945-1946; Visiting Professor, University of North Carolina School of Social Work, 1949-1959. Professor of Law and Director of the Legal Aid Clinic, Duke University, 1931-1959; Professor Emeritus of Law, since 1959.

Edwin C. Bryson, LL.B., Prafessor Emeritus af Law

University of North Carolina, 1922-1925; Duke University, 1932-1933; LL.B. 1937, University of Oregon. General practice, 1927-1930. Assistant to Duke University Legal Aid Clinic, 1931-1947; Duke University Counsel, 1945-1971; Associate Professor of Law, 1947-1954; Professor of Law, 1954-1971; Professor Emeritus of Law, since 1971.

Elvin R. Latty, B.S., J.D., J.Sc.D., William R. Perkins Professar at Law Emeritus and Dean Emeritus B.S. 1923, Bowdoin College; J.D. 1930, University of Michigan; J.Sc.D. 1936, Columbia University. Instructor in Romance Languages, University of Vermont, 1923-1927; general practice, 1930-1933; Special Fellow, Columbia University, 1933-1934; Associate Professor of Law, University of Kansas, 1934-1935; Professor of Law, University of Missouri, 1935-1937; Visiting Professor of Law, George Washington University, summer, 1937, Stanford University, summer, 1938, University of North Carolina, summers, 1942, 1947, 1949, 1956, University of Texas, summer, 1951, University of Puerto Rico, spring, 1968, University of Florida, summer, 1970; Fulbright Lecturer, University of Pavia, Italy, 1954; Special Assistant to the American Ambassador, Caracas, 1942-1943; Acting Assistant Chief, Foreign Funds Control Division, U.S. Department of State, 1943. Professor of Law, Duke University, since 1937; Dean, School of Law, 1958-1966; William R. Perkins Professor of Law Emeritus and Dean Emeritus, since 1973.

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General Information



History

Union Institute, founded in 1838, later became Trinity College, which in turn formed the nucleus around which Duke University developed. The teaching of law as part of a cultural education began at Duke in 1850 and as part of a professional education in 1868 with the establishment of the Department

of Law of Trinity College.

The School of Law of Trinity College was founded in 1904. Samuel Fox Mordecai organized the School and was its Dean until his death in 1927. The establishment of the School of Law set a new standard in Southern legal education; Duke was the first Southern law school to require college work as preliminary to the study of law. The completion of two years of college work was an entrance requirement. The case method was used as the basis of instruction, and the completion of three years of resident study was required for the LL.B. degree.

In 1924, James B. Duke established The Duke Endowment, and Duke University came into being. The ideas of the founder with reference to the University and its training of lawyers were expressed in the Indenture establishing

The Duke Endowment:

I have selected Duke University as one of the principal objects of this trust because I recognize that education, when conducted along sane and practical, as opposed to dogmatic and theoretical lines, is, next to religion, the greatest civilizing influence. I request that this institution secure for its officers, trustees, and faculty men of such outstanding character, ability and vision as will insure its attaining and maintaining a place of real leadership in the educational world, and that great care and discrimination be exercised in admitting as students only those whose previous record shows a character, determination and application evincing a wholesome and real ambition for life. And I advise that the courses at this institution be arranged, first, with special reference to the training of preachers, teachers, lawyers and physicians, because these are most in the public eye, and by precept and example can do most to uplift mankind. . . .

During its early years the Law School expanded from twenty-five students and three professors in 1924-1925 to fifty-five students and five professors in 1929-1930. During the 1930s, enrollment stabilized at about one hundred students with thirteen faculty members until 1941 when World War II caused a dramatic drop.

During the 1930s the Duke Law School was reorganized and the curriculum and professional activities were broadened. Its objectives, the nature of its curriculum and resources, and the quality and states of origin of its students and faculty distinguished it as a national law school.

Since World War II the Law School has been characterized by a distinguished faculty, an outstanding student body, and a broad curriculum. A new building, completed in 1962, has provided needed library and classroom space.

Throughout its history the Law School has emphasized quality rather than quantity in its student body. It now admits each fall approximately 150 students selected from nearly three thousand applicants.

The Duke Law School is approved by the American Bar Association and is a member of the Association of American Law Schools.

Nature of the School

The nature and character of a school are determined by the people who compose it, their aims and methods, and the extent to which they achieve their objectives.

The Faculty. The members of the faculty are varied in outlook, in philosophy, and in political views. Their different backgrounds, ages, and range of experience serve to provide a balanced perspective and to ensure that the Law School will continue to develop as a dynamic vet stable institution.

The primary goal of the faculty is to train students to become effective lawyers. Their common concern is to aid students to realize their potential not only as lawyers but as individuals and as useful citizens in a complex and changing society. The faculty seeks to make legal education at Duke a cooperative venture between students and professors. One of the traditions of the Law School is to foster rapport between faculty and students. The present student-faculty ratio at Duke is less than twenty to one, which is one of its greatest assets. The welfare of each student enrolled in the Law School is important to the faculty.

The Students. Students at Duke come from colleges and universities throughout the United States, creating a diverse student body with varied backgrounds and interests. They have achieved outstanding undergraduate records before beginning their study of law at Duke.

Minority group students, women, and veterans are especially encouraged to apply for admission.

Purposes

The primary goals of the Duke Law School are instruction, research, and public service. The primary instructional purpose of the School is to educate its graduates to perform the roles that lawyers perform, and will perform in our society. The aims of the School set forth in the early 1900s still remain.

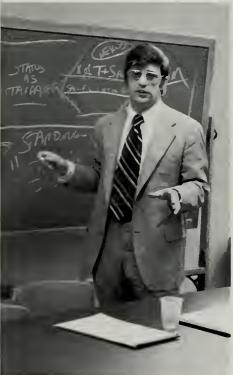
The Duke Law School strives to give such training in the fundamental principles of law as is necessary to a right and successful practice of the profession in the commonwealths of this nation; to awaken in young students of law faith in, and admiration for, the profession; to develop in them a lively sense of honor and justice; and to fit them in moral character for the delicate duties which belong to this ancient and noble profession.

The profession of law affords varied careers, and Duke Law School provides thorough preparation for specialization in any branch of the law. A number of Law School graduates have chosen to work in private practices in large firms and small, metropolitan centers and small towns, representing clients—wealthy and









poor, corporate and individual, public and private. Other graduates have selected public service careers, advising and representing governmental agencies at federal, state, and local levels. Many of the highest elected and appointed executive positions in American government have been filled by Duke Law School graduates. Duke Law School graduates are not, however, confined to private practice or government; some have excelled in business, education, and in other fields.

American law has expanded and changed at a rapid pace in this century and the rate of change will not diminish. Law careers in the future promise to be even more varied. As the national scene changes the Law School, too, will change in order to educate lawyers able to structure the legal institutions of the future.

Methods

A law school of Duke's size is particularly well-adapted to teaching by the case method. This involves the teaching of actual and hypothetical cases by Socratic discussion between students and instructors. Most first-year courses are taught by this method. Each first-year student has at least one small section in which additional skills are taught and classroom participation is routine.

The Law School seeks to have the student acquire knowledge and comprehension not only of legal doctrine, but also of judicial process and of the social, economic, and political problems with which law and lawyers must deal. The method of instruction employed compels analysis of judicial opinions and inquiry into the nonlegal as well as the legal considerations which underlie them. In appropriate courses, special consideration is given to the work of legislative and administrative agencies of government. In recognition of the increasing importance of the role of the lawyer in representing private interests before government agencies and in government service, a broad program is offered in the public law field. Opportunity for creative student work is provided by seminar courses and supervised individual study and research. Courses and seminars dealing with consumer protection, race relations, urban problems, criminal procedure, land use planning, and the environment bring the student into contact with major problems facing the country today.

A carefully integrated series of courses is designed to give students actual experience in the work of lawyers. Legal research and writing, moot court work, and procedure in the first year are followed in the second and third years by courses, seminars, and co-curricular activities emphasizing trial techniques, legal planning and drafting, professional responsibility, and the development of varied skills and approaches. A student bar association affords a means whereby the student may become acquainted with the professional organizations through which a lawyer may and should contribute

to the well-being of his profession.

Resources for Study

The Law Building. The present Law School building was completed and occupied in September, 1962. Located just off the Gothic core of the West Campus, the building is of modified Georgian architecture. It reflects a notable characteristic of the School—a high ratio of facilities to students admitted. Despite long-range plans to keep the student body moderate in size, the general spaciousness, number of classrooms and seminar rooms, seating capacity in the library reading room, library stack spaces, student carrels, student lockers, student lounge areas, faculty offices, quarters for legal publications, special quarters for institutional studies, and the courtroom are of proportions ordinarily associated with a far larger student body. The building consists of a classroom wing and a library and administrative wing, with faculty offices and student activities in both areas.

Law Library. Students who decide to dedicate their careers to the study and practice of law should be aware that many working hours throughout their careers will be spent in law libraries. There they will study and research relevant points of law, write briefs and memoranda, draft pleadings and documents, prepare legal arguments, and do most of their professional thinking.

Modern legal research is a formidable task requiring knowledge of legal literature and a trained aptitude in its application. It is for this reason that law libraries perform such an important function in the process of legal education.

In addition to being repositories of legal materials, they are the testing grounds

for the intensive and highly competitive training of law students.

The Law Library of Duke University is designed for the express purpose of lending optimum support to the advancement of an outstanding legal education. Through a careful application of its many facilities, including one of the largest collections of legal materials in the United States, the library encourages every student to make full use of its resources for study requirements as well as independent research.

The efforts of the Law Library to provide maximum service are reflected in the long hours of daily operation, accessible stack areas, a continuous reference service, and maintenance of an excellent reserve collection. Space within the library is sufficient to accommodate the entire student body at one time.

During the last fifty years, the Law Library collection has grown from less than 4,000 to more than 190,000 volumes, in addition to large numbers of pamphlets, documents, and microfilm materials. Work is in progress to

expand both the size and nature of the collection.

The main core of the collection consists of substantially all reported decisions of the federal, state, and territorial courts of the United States and the courts of Great Britain and other Commonwealth countries. It includes also the constitutions, codes, statutes, and subsidiary legislative publications of all of these jurisdictions, as well as many digests, indices, bibliographies, and other research tools for effective research into every legal system in the English language. A large section of the library collection is devoted to treatises on all phases of law and legal science, supplemented by works in the fields of history, economics, government, and other social and behavioral sciences relevant to legal research. There are special collections in foreign law, international law, and international business law. Selected documents and pamphlet materials are kept on file. The library maintains complete subscriptions to all current legal periodicals of general interest printed in the English language, many nonlegal periodicals, and most major legal periodicals published in foreign languages.

The Law Library is supplemented by the Perkins Library with its general collection of over two million volumes, including works on law and related subjects, and its special collection of domestic and international documents.

The Law Library is an automonous unit of the University library system, whose administrators are directly responsible to the Dean of the Law School. It is staffed by the Law Librarian, a member of the faculty, who is assisted by a staff of specialists.

The Rule of Law Research Center. In the fall of 1958, the Duke Law School established its Rule of Law Research Center with Professor Arthur Larson as its director.

The center's principal activity during the sixties was research and publication on questions of law and international organization bearing on security, peace, disarmament, and world order. More recently, its efforts have also concentrated on race relations, population problems, and employment discrimination.

Facilities for the Handicapped. Duke Law School has anticipated many difficulties which might impede the work of otherwise qualified handicapped law students. Special parking spaces immediately in front of the Law School can be arranged. Inside and outside ramps have been constructed to facilitate access by students in wheelchairs. In addition, there is an elevator in the building. Blind students are guided between classes by voluntary student









guides. The Duke Law Dames have in the past volunteered to read to blind students. Similar provisions will be made as necessary for other handicapped students admitted to the Law School.

Publications

Law and Contemporary Problems. For forty-one years the Law School has published the faculty-edited quarterly Law and Contemporary Problems. The journal is distinctive among professional legal publications in both its format and content. Each issue is devoted to a symposium on a particular topic of contemporary interest. These topics are approached from an interdisciplinary perspective with contributions by legal scholars, economists, social scientists, and public officials. Recent symposia have dealt with such diverse topics as Athletics, Trade with China, School Finance Reform, and Occupational Safety and Health. In the near future, symposia will be devoted to such topics as Children and the Law, Social Science and School Desegregation, Federal Taxation and Charitable Organizations, Presidential Power, and The American Indian and the Law.

The quarterly, presently under the editorial direction of an interdisciplinary faculty committee, is widely distributed, and its subscribers include general university libraries, governmental agencies, and foreign educational institutions, as well as the more traditional law libraries and law firms. Through an arrangement with Oceana Publications, Inc., selected issues of the journal are reprinted in hard cover as part of a series known as the Library of Law and Contemporary Problems. Students at the Law School are employed as editorial assistants.

Duke Law Journal. The Duke Law Journal is a student edited publication printed six times a year. It contains about 1,300 pages, one half of which are written by members of the Journal. The rest of the articles are submitted by practicing attorneys, professors, and judges. All material is edited by an executive committee of ten student editors who are members of the third-year class.

Second- and third-year law students are eligible to join the Journal, and membership on the staff is by invitation. About 60 percent of the staff members are invited to join because of their academic performances during the first year of law school. The other members of the staff are selected on the basis of their demonstrated ability to write about legal topics. To show their writing skills, the students can participate in the Contributor Program writing competition or in the Voluntary Writing Program. After one year, staff members become members of the Editorial Board.

Corporate Practice Commentator. The Corporate Practice Commentator, a quarterly periodical devoted to significant developments and new thinking in the field of corporation law and practice, published by a commercial concern, is edited at Duke by Professor F. Hodge O'Neal. The Commentator gives attention to matters of interest and importance to counselors and managers of corporate and other business enterprises, with articles on corporation law and practice, securities regulation, tax problems, antitrust questions, labor matters, patents and copyrights, executive's compensation, fair trade legislation, and other matters arising from business activities. Special consideration is given to trends in business practices and to new business problems.



Program Information



Juris Doctor Degree

Upon favorable recommendation of the faculty, the degree of Juris Doctor (J.D.) will be conferred upon students who have successfully completed six semesters of law study in residence at Duke. Two semesters of law study undertaken at another accredited American law school may be counted toward the required total if the final two semesters (exclusive of a summer session) and a minimum of 54 semester hours of law study are undertaken at Duke. Students are not permitted to accelerate graduation by attending summer school.

A student shall be deemed to have successfully completed six semesters of law study if, during a minimum of ninety academic weeks, he has completed the following requirements:

following requirements.

1. A passing grade in courses aggregating 84 semester hours;

2. A grade not requiring repetition in every required course; and 3. A grade point average of at least 1.80 on a 4.0 scale.

Bachelor of Laws Degree

Upon favorable recommendation of the faculty, the degree of Bachelor of Laws (LL.B.) will be conferred upon students who shall have successfully completed all of the requirements listed above as necessary for the Juris Doctor degree but who do not possess a baccalaureate degree prior to completion of the program of study for the Juris Doctor degree.

Joint Degrees

Combined Medical-Law Degree. The School of Medicine and the School of Law of Duke University have established jointly a unique program of combined medical and legal education. The aim of the program is to provide a small number of selected individuals with the opportunity to acquire an education in both medicine and law during a six-year course of closely integrated study in the two fields. Upon satisfactory completion of the required course of study, candidates will be awarded both the M.D. and the J.D. degrees.



The student in the M.D.-J.D. program begins his six-year course of study in the School of Medicine. As in the regular M.D. program, his first year is devoted to the basic medical sciences and the second year to the basic clinical disciplines. At this point the student enters the School of Law, where his first-year curriculum is the same as that of other law students. During the next two years he selects courses in the Law School which are of special application to his medical-legal interest, and his sixth and final year is spent in elective clinical work in the Medical School, which may also be tailored to his specialized needs. In addition, the student will be required to complete additional elective basic science work amounting to eighteen semester hours, or two summer sessions. His other summers will be unscheduled, but opportunities will be presented to enable the student to engage in medical-legal endeavors suited to his developing interests. Throughout the six-year program the student will have available to him the counsel of faculty members of the two schools to help him in the selection of courses and in the definition of his career objectives.

Combined Master of Business Administration-Law Degree. The School of Law and the Graduate School of Business Administration of Duke University have established a combined program of studies in law and graduate level business administration. The aim of the program is to provide a small number of selected individuals with the opportunity to acquire an education in both law and business administration in a four-year course of closely integrated study in the two fields. Upon satisfactory completion of the required course of study, candidates will be awarded both the M.B.A. and the J.D. degrees.

The student in the M.B.A.-J.D. program will begin his first-year course of study in either the Graduate School of Business or the School of Law. If the student begins in the Law School, his first-year curriculum will be the same as

that of other law students; if he begins in the Graduate School of Business Administration, his first-year curriculum will be the same as that of other graduate business students. The student's second year will consist of taking the full first-year program of the other school. In the third and fourth years of the program the student will take a mix of courses in the two schools. Throughout the four-year program, the student will have available to him the counsel of faculty members of the two schools to help him in the selection of courses and the definition of his career objectives.

Combined Master of Arts in Public Policy Sciences-Law Degree. The joint degree program in law and public policy sciences provides an opportunity for students to acquire decision-making skills and substantive policy knowledge which would be useful in either career or citizen roles dealing with problems of the public sector. The combined program requires four academic years and one internship summer to complete. of which the first academic year is spent exclusively in the Law School, the second exclusively in the Institute of Policy Sciences, and the third and fourth years mainly in the Law School, but with one public policy sciences course each semester.

To succeed in the program, a student must have ability to learn how to use numbers in analyzing public policy problems. No specific quantitative background is required, although students who have taken calculus, advanced statistics courses, and advanced economics courses will have a considerable

advantage.

In addition to the required methods and theory courses, a joint degree candidate must select a substantive policy area in which to concentrate. Such concentrations are available in the following fields at the present time: The Administration of Justice, Communications Policy. Health Policy, and Educational Policy. Course descriptions of some courses appear on page 52.

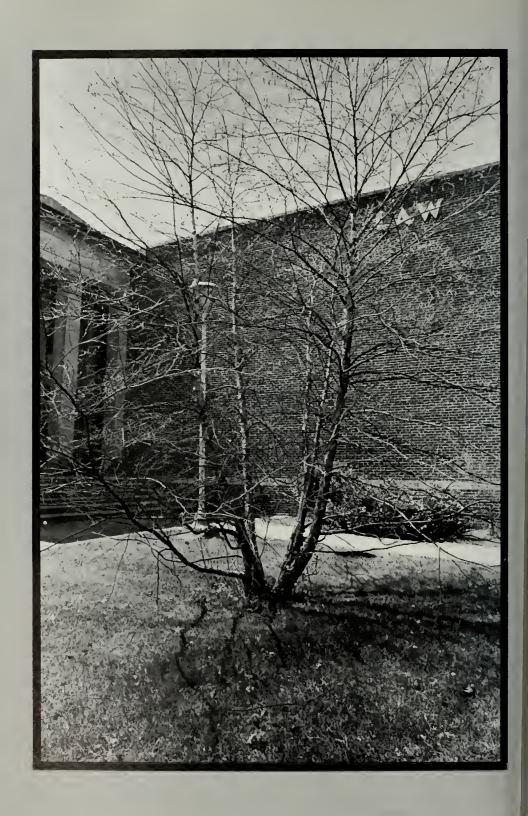
Combined Master of Health Administration-Law Degree. The School of Law and the Department of Health Administration of Duke University have es-

tablished a combined degree in law and health administration.

The student in the M.H.A.-J.D. program will spend his first two years in the School of Law. He will then spend one year and one summer in the M.H.A. program, returning to the School of Law for his final year. Two courses in the Law School curriculum will be designated by the Department of Health Administration as electives to be counted toward their degree. The student will complete eighty-four hours of credit in the Law School.

Graduate Study in Law

The law faculty has the authority to recommend that the University confer three separate graduate degrees: the degree of Master of Laws (LL.M.), the degree of Master of Comparative Law (M.C.L.), and the degree of Doctor of Juridical Science (S.J.D.). The number of candidates accepted for study in any of these degree programs is extremely limited. No systematic or formal program of graduate instruction exists at Duke Law School. An applicant will be accepted for graduate study only if a faculty member indicates willingness to supervise the work of the student, if the student does not require financial assistance, and if the student has achieved a superior academic record in his undergraduate law studies. The course load, the program of instruction, and all other requirements for the degree will be determined by the Dean and the involved faculty member, subject to the approval of the entire faculty. Any candidate interested in obtaining one of the three graduate degrees of law at Duke should have formulated a specific research project prior to applying.



Admissions



General Information

The admissions process for the typical law school applicant is at best time-consuming and lengthy, occasionally creating severe anxiety. The Admissions Committee is aware of the difficulties and uncertainties faced by applicants. Consequently, it is our goal to treat each applicant with fairness and with candor. The following description of the admissions process at Duke is presented with that object in mind.

At Duke, as at most law schools, the two most important admissions criteria are the undergraduate grade point average (GPA) and the Law School Admission Test (LSAT) score. Every two years validity studies are conducted by the Educational Testing Service to review the predictive value of these two criteria at Duke Law School. More specific statistical studies concerning a variety of admissions topics are constantly underway in the Admissions Office at Duke. An admissions decision is, however, a far more complex process than merely rank-ordering applicants by an index number based on a numerical formula derived from the LSAT and GPA. First, the applicant's GPA is interpreted by carefully evaluating his or her transcript, and judgments are made regarding the strength of the curriculum, the quality of the undergraduate institution, class rank, the major, and the progression of grades. Furthermore, although reliance on purely academic criteria is appropriate in making many decisions, particularly those involving candidates either clearly admissible or clearly inadmissible, other more subjective factors can become quite important in close cases. Proven capacity for leadership, dedication to community service, excellence in a particular field, motivation, graduate study in another discipline, work experience, and extracurricular activities all receive careful consideration in appropriate cases. Duke does have a faculty-initiated affirmative action plan for minority admissions; special care is taken in evaluating applications from members of minority groups who traditionally have not been well represented in the legal profession. Furthermore, as a small law school with a broadly based national reputation, Duke makes a conscious effort in the admissions process to create in each entering class a broad diversity

in general background, geography, and undergraduate institutions represented. In an entering class of approximately 150 to 170 students, each student admitted is selected not only for his or her marked potential for academic success but also frequently because application materials indicate that he or she can bring to Duke unique personal qualities or talents that will enhance

the "mix" provided by the entering class.

For both more detailed and more general information on law school admission, prospective applicants are advised to consult the most current issue of the Prelow Handbook, published annually in October by the Law School Admission Council and the Association of American Law Schools. It includes material on the law and lawvers, the study of law, prelaw preparation, applying to law school, and a complete Law School Admission Test, together with individualized information on most American law schools. The Duke Law School provides information on its admissions policies for publication in the Prelaw Handbook. Close examination of the information contained in the latest edition of the Prelaw Handbook indicates that although an applicant's LSAT and GPA are quite significant and can in some cases predict admission or rejection, in many cases they are far from being exclusive criteria. Admissions is not, and the law faculty believes it should not be, a purely mechanical process. The Prelow Hondbook may be obtained at college bookstores or ordered from Educational Testing Service, Box 944, Princeton, New Jersey 08540.

The Admissions Committee at Duke receives its authority by delegation from the law faculty and it reports to the law faculty. The Admissions Committee, composed of four law professors and three law students, decides all policy questions arising in the admissions process. Some individual files involving close decisions or individual problems are reviewed by the four faculty members on the committee. Student members of the committee participate in all policy decisions but do not review individual files. The Admissions Office at Duke is under the direction of the Assistant Dean. The Assistant Dean and supporting staff administer the policy decisions adopted by the Admissions Committee. All admissions files are treated confidentially; material in the files is available only to personnel in the Admissions Office and members of the law faculty.

Duke has no formal deadline for the submission of applications. However, it is strongly recommended that applications be filed between September 1 and January 1. An applicant ordinarily will receive an answer no later than March 15 if his application has been completed before January 1. No applicant who receives an offer of admission will be required to make a final decision on the offer prior to April 1. Applications completed after January 1, or deferred from the first decision period, will receive notification of action no later than May 15. Only in rare cases will offers be extended prior to March 1 or after May 15. After May 15 a waiting list is normally established and the list is held open until a few days prior to fall semester registration; offers are extended to waiting-list files only as withdrawals occur from the paid-depositor list.

Juris Doctor Degree

First-year students may enter only at the beginning of the fall semester. Students who have completed the first year of law study at this or any other law school approved by the Association of American Law Schools may enter at the beginning of any semester. Duke Law School is a full-time day school only; no part-time study is available.

An application for admission to Duke Law School as a candidate for the degree of Juris Doctor may be submitted by any person who is a graduate of an approved college. Applicants will be considered without regard to sex, race, creed, religion, or national origin.

Combined Course Program

Arrangements with several colleges permit outstanding students who have completed three years of undergraduate work to enter the Duke Law School. Upon the satisfactory completion of the first year of law school, the student receives a Bachelor of Arts degree. Interested students should determine

whether their college participates in this program.

An undergraduate student at Duke University who has completed three years of study and whose entire college record shows exceptional academic achievement may apply to the college in which he is enrolled for permission to participate in a combined course program wherein his first year of law study is credited toward the completion of requirements for the undergraduate degree. After receiving the undergraduate degree and the successful completion of four additional semesters of law study, a student in the combined course program will receive the degree of Juris Doctor (J.D.).

Less than five percent of an entering class is admitted before receiving the baccalaureate degree. Students considering entrance before obtaining this degree should consult the rules of the Board of Bar Examiners in the state in which they plan to practice law for regulations applicable to this program.

Bachelor of Laws Degree

Applications may be submitted by a candidate without a prior baccalaureate degree if he has completed in a college of approved standing work equivalent in number of units to three-fourths of that required for graduation and whose entire college record shows exceptional academic achievement. Graduates who have been admitted under this provision will be candidates for the degree of Bachelor of Laws (LL.B.).

Advanced Standing

Any person who has complied with the requirements for admission set forth in this *Bulletin* prior to the commencement of his law study, who presents evidence of the satisfactory completion of one year of study at any law school which is a member of the Association of American Law Schools, and who is eligible for readmission to the law school from which he proposes to transfer, may apply for admission with advanced standing, subject to such rules as are applicable to students in this school having a comparable scholastic record. Provisional credit for courses so completed will be given, with final credit contingent upon the completion of at least two academic years of law study at Duke Law School with satisfactory grades. Adjustment of credit for work done in other law schools may be made by the Dean or by vote of the faculty.

Joint Degree Programs

M.D.-J.D. Program. Applicants for the M.D.-J.D. program must qualify for admission to both the School of Medicine and the School of Law. In addition, they must apply specifically for admission to the M.D.-J.D. program. Applica-



tions will be passed upon by the joint Law-Medicine Committee, which is composed of faculty members from the two schools. Personal interviews will be

required of all applicants.

Because of the special intellectual demands involved in mastering two professions, exceptionally high standards will be applied in admitting students. Students will be evaluated also on the basis of motivation, demonstrated interest, and likely achievement in fields relevant to the program's concerns.

In view of the highly specialized character of the field, it is anticipated that enrollment in the program will be limited. Probably no more than three will be accepted in any one year. For information on Medical School admissions, the prospective applicant should write the Admissions Office, Duke University Medical School, P.O. Box 2901, Durham, North Carolina 27710.

M.B.A.-J.D. Program. Applicants for the M.B.A.-J.D. program must qualify for admission to both the Graduate School of Business Administration and the School of Law. In addition, they must apply specifically for admission to the M.B.A.-J.D. program. It is anticipated that enrollment in the program will be limited. For information on the Graduate School of Business Administration, the prospective applicant should write Admissions Office, 127 Social Science Building, Graduate School of Business Administration, Duke Station, Durham, North Carolina 27706.



A.M. in Public Policy Sciences-J.D. Program. Applicants for the A.M. in Public Policy Sciences-J.D. program must qualify for admission to both the Institute of Policy Sciences and Public Affairs and the School of Law. Also, the applicant must specify on each application that he is applying for the A.M. in Public Policy Sciences-J.D. program. It is anticipated that enrollment in the program will be limited. For information on the Institute of Policy Sciences and Public Affairs, the prospective student should write the Institute of Policy Sciences and Public Affairs, Box 4875, Duke Station, Durham, North Carolina 27706.

M.H.A.-J.D. Program. Applicants for the M.H.A.-J.D. program must qualify for admission to both the Department of Health Administration and the School of Law. For information on the Department of Health Administration, the prospective student should write the Department of Health Administration, Box 3018, Duke University Medical Center, Durham, North Carolina 27710.

Admission Procedures

Application must be made on the prescribed Law School forms which are available upon request. A fee of \$25 is charged for processing an application and a check or money order for this amount should accompany the application. This application fee is not waivable except in cases of extreme personal

hardship. No application will be reviewed by the Admissions Committee and no applicant will be accepted until all required documents are on file. These documents are:

- The application itself, to which a recent personal photograph must be attached.
- 2. Transcripts of all college and graduate academic records submitted through the Law School Data Assembly Service (LSDAS), Educational Testing Service, Box 944, Princeton, New Jersev 08540.
- 3. A report of the applicant's score on the Law School Admission Test (LSAT) administered by the Educational Testing Service. The LSAT is given periodically at examination centers conveniently located throughout the United States and at special foreign centers. Testing dates in the summer and fall of the applicant's final year of undergraduate study are strongly preferred. LSAT scores that are no more than four years old will be considered valid. Application forms and information should be procured by writing directly to: Law School Admission Test, Educational Testing Service, Box 944, Princeton, New Jersey 08540.
- 4. Two completed reference forms, one of which should be written by an appropriate academic dean at the undergraduate school last attended. This should include a statement of the applicant's rank in class. It is suggested that the other reference form be submitted by an instructor who has personal knowledge of the academic performance and potential





of the applicant. References should be requested to return their forms directly to the Admissions Office. Duke University School of Law, Durham, North Carolina 27706.

Ordinarily, the Law School conditionally accepts or rejects an applicant on the basis of a transcript showing college work through the junior year. Final action is taken in the light of further supplemental transcripts showing all of the college work required for admission to the Law School. A conditionally accepted applicant has been rejected later on the basis of the completed transcript in only a few cases in the history of the School. Personal interviews are not required and usually have little effect on the admissions decision; however, a visit to the Law School and an interview will be arranged if requested by the applicant.

Opinions differ concerning whether preparation for the LSAT is likely to improve an applicant's score. Experience at Duke suggests that careful prepara-

tion may improve the scores of some applicants.

Each applicant extended an offer of admission will be given three calendar weeks to respond. In fairness to applicants who have also filed applications with other schools, Duke will in no event impose an earlier deadline than April 1 for response to offers. A deposit fee of \$100 must be paid at the time the applicant accepts an offer of admission. This deposit fee is non-refundable and will be applied to the tuition charge for the first semester of law study.

Reactivating Admission Files

If an applicant has applied for admission in a previous year and was not extended an offer of admission or chose not to enter during that academic year, he may request that his file be reactivated for consideration by the Admissions Committee. A fee of \$25 is charged for processing the application and a check or money order for this amount must accompany the request for reactivation of the file. The applicant must also reregister with the Law School Data Assembly Service (LSDAS). Educational Testing Service, Box 944. Princeton. New Jersey 08540.

Deferred Acceptance

The Duke University School of Law does not defer acceptances. If an applicant elects not to enter in the fall of the year in which he is accepted, it will be necessary to request that his file be reactivated in the fall prior to the year in which he wishes to enroll. If an applicant chooses not to accept an offer of admission, this will in no way adversely affect a future admission decision.

Pass-Fail Transcripts

A special word of caution should be extended to applicants concerning undergraduate pass-fail courses. The Admissions Committee has had occasion in recent years to consider transcripts consisting of predominantly pass-fail grades. Only a minute percentage of those considered were admitted. It is fair to state that a student's chances of admission are inversely proportional to the percentage of such grades appearing on the transcript. The attention of applicants is invited to the discussion of pass-fail grades contained in the Prelaw Handbook.



Financial Information



Tuition

The cost of providing a legal education of the quality offered by the Duke Law School is high and has been steadily increasing. Tuition provides only a part of the funds necessary, with the remainder provided by income from endowment, grants, and gift support of alumni and friends.

Tuition at Duke is due and payable not later than the day of registration for a particular semester. For the academic year 1975-1976, tuition will be \$3,050 (\$1,525 per semester). Incoming students should be aware that tuition will probably rise annually during their course of study.

Tuition Refund Policy. Tuition refunds are governed by the following policy:

- 1. In the event of death or a call to active duty into the armed services, a full tuition refund is granted.
- 2. In all other cases of withdrawal, students or their parents may elect to have tuition charges refunded or carried forward as a credit for later study, according to the following schedule:
 - a. Withdrawal before the beginning of classes: full refund.
 - b. Withdrawal during the first or second week of classes: 80 percent.
 - c. Withdrawal during the third through fifth week: 60 percent.
 - d. Withdrawal during the sixth week: 20 percent.
 - e. No refunds after the sixth week.
 - f. Tuition or other charges paid from grants or loans will be restored to those funds, not refunded or carried forward.

General Expenses

Applicants should be aware that the following general expense estimates were compiled in the spring of 1975, and appropriate revisions may be necessary to reflect inflationary increases. It should also be recognized that the expenses of a Duke law student may vary considerably according to the style of living assumed, and travel distance and size of family, if any. With the

above cautionary statements in mind, the following are the best estimates as to total living costs for a nine-month academic year: \$5,500 to \$6,200 for single students; \$7,300 to \$8,000 for married students; and \$8,300 to \$9,000 for married students with one child. Included in the above living cost estimates are present expense levels for tuition, lodging, board, books (\$170 to \$220 if purchased new), supplies, transportation, and personal effects. Applicants for loans and scholarships should expect that their proposed budget figures will be examined carefully with the hope that these figures fall in the lower ranges of the above estimated expenses.

Housing

Graduate Center. The Graduate Center is available to men and women enrolled in the Law School. This facility is adequate and convenient, but some disadvantages are the lack of single rooms and private baths. The limited number of single rooms, located in the men's section only, are usually reserved by previous occupants for the following academic year. Other rooms are

equipped for two persons.

Each double room is equipped with the following for each student: bed with innerspring mattress, chest with mirror, desk with chair, and book shelving. An additional occasional chair is placed in each double room. Each room has two large closets with storage space for hand luggage. Linens, curtains, rugs, desk lamps, and other small furnishings must be supplied by the students. Coinoperated washing machines and dryers are available, as are laundry lockers. The Student Linen Rental Service is also available. Rental charges for the academic year are as follows: single room, \$641; double room, \$484.

Town House Apartments. Town House Apartments, located in the Central Campus area, is a 32-unit complex which Duke purchased a number of years ago from a private developer. These apartments are more spacious than the apartments found on campus or in Durham. Because of their location away from the academic facilities of the campuses, students find these apartments offer a change from normal campus life and activities. Normally these units are reserved for single graduate and professional school students during the academic year. These apartments are available for continuous occupancy, summer months included. A swimming pool is available in the late spring and summer.

Sixteen two-bedroom apartments are furnished for two single graduate students. The remaining are furnished for three students. Each air-conditioned apartment includes a living room, master bedroom, bath and a half, a single bedroom, and an all-electric kitchen with a dining area. Spacious closets and storage space are provided within each apartment. Duke University provides all maintenance services, both emergency and routine.

Occupants must arrange and pay for electricity, gas, and telephone service with the local utility companies. Deposits are required by the General Telephone Company of the Southeast. Rental charges for the academic year are as follows: two bedrooms, two students, \$1,089; two bedrooms, three students, \$726.

Central Campus Apartments. During 1974, Duke University opened units in a 50-unit apartment complex. Apartments are available for single and married students attending the graduate and professional schools, undergraduate colleges, and the various allied health courses of the Medical Center. These units are available throughout the calendar year for continuous occupancy.

For single graduate and professional school students, one-bedroom and three-bedroom apartments are fully furnished; a few furnished efficiencies are also available. It is expected that many more applications will be received for efficiencies than can be accommodated; therefore, the chance of obtaining one of these units is remote. The apartments are furnished and equipped in such a way as to provide economy and convenience to the single student. Bedroom furniture includes a bed and chest for each occupant. Study desks are not provided. Laundry lockers are available.

Rental charges, including utilities (except phones), are as follows:

Efficiency \$1.479
One bedroom, two students \$908

Two bedrooms, two students

Two bedrooms, three students

Not available

Not available

Three bedrooms, three students \$865

Married students may apply for an apartment in Central Campus Apartments. Efficiency apartments are available to married students without children. A few one-bedroom apartments are available to married students without children or with not more than one child who must be under four years old at the time of occupancy. Two-bedroom apartments are available to married students without children or not more than two children. Three-bedroom apartments are available to married students without children or not more than four children. In unusual circumstances, the Manager of Apartments and Property may make exceptions. The University authorizes married students to occupy units in Central Campus Apartments with members of their immediate families only.

Monthly rental charges, including all utilities (except phones), are as follows:

| Efficiency | \$166 |
|--------------------------------------|-------|
| One bedroom (unfurnished) | \$185 |
| One bedroom (partially furnished) | \$201 |
| Two bedrooms (partially furnished) | \$250 |
| Three bedrooms (partially furnished) | \$277 |

Modular Homes. The University owns six modular homes which are located near Town House Apartments. They are reserved for single undergraduate and graduate students and offer more privacy than apartments. These three-bedroom homes are equipped for three-person occupancy and have proved to be very popular. They are usually reserved by students who have occupied other University accommodations during the previous academic year. Students arrange for and defray the cost of utilities. Rental charges for the academic year are as follows: three bedrooms, three students, \$969.

Living in the Durham Community. Students who desire to live in Durham in privately owned rooms, apartments, or houses should begin their search for housing as soon as possible by writing to various private realtors to learn of available apartments, rates, and how to obtain applications. There is usually no problem in finding an apartment in a complex; however, duplexes are usually more difficult to find. Many realtors offer short-term leases or academic year leases for students. During the summer, an off-campus housing assistant is available to assist students in obtaining housing in the Durham area. The Office of the Manager of Apartments and Property maintains a listing of available accommodations in the Durham area. It is not feasible to mail these listings since they change almost daily. Students are urged to visit the campus and check these listings during office hours. Off-campus rental property is not

inspected or approved, nor does the University or its agents negotiate with

owners for students, faculty, or staff.

Further information on housing can be obtained from: Manager of Apartments and Property, Department of Housing Management, Duke University, Durham, North Carolina 27706.

Application and Residential Fees. Each student accepted into a graduate or professional school of the University will be provided with a form on which to indicate housing needs. This form will be sent to the Department of Housing Management which will provide more detailed information about rates and rental apartments.

Residential Deposits. A residential deposit of \$50 must accompany all application forms for housing at Duke University. This deposit is held throughout the term of the original occupancy and subsequent renewal. This deposit is refunded if a cancellation of a reservation is received by the Department of Housing Management on or before July 15, 1975, for fall semester reservation and on or before December 31, 1975, for cancellation of the spring semester reservation. Other information pertaining to deposit refunds will be contained on the receipt which will be mailed by the Department of Housing Management.

Students must make payment for their fall semester housing fees prior to occupancy of their assigned space. Housing fees for the spring semester must

be paid by January 8, 1976.

Prepayment of Housing Fees. In addition to residential deposits, students currently residing in University housing facilities and desiring to reserve accommodations for the next academic year or a lesser period must pay a \$50 prepayment of housing fees to the Office of the Bursar. The Bursar's receipt must be presented to the Department of Housing Management at the time the application is made. The prepayment is applied to fall semester or the first month's rent, as appropriate. This prepayment is refundable if a student:

a. withdraws from the University;

b. has an approved leave of absence prior to August 15 and notifies the Department of Housing Management at that time; or

c. cancels his application on or before May 8.

Housing fees for single students are payable in advance by the semester prior to occupancy, unless special arrangements to pay on a different basis are made with the University Bursar. Married students may make monthly payments as required by the terms of their lease.

Additional payments above the academic year rate are required for students who must arrive earlier than the dates established for occupancy or for vacating University housing. These additional charges are based on daily rates

on which the academic rates are predicated.

Debts

No records are released and no student is considered by the faculty as a candidate for graduation until he has settled with the Bursar for all indebtedness.

Late Registration/Late Payment Fee

Students who register in any semester or pay their fees at a date later than that prescribed are required to pay to the Office of the Bursar a \$25 penalty for late registration or late payment of fees.

Athletic Events Fee

Law students may secure admission to all regularly scheduled University athletic contests held on the University grounds during the entire academic year by payment of the athletic fee of \$25 per year plus tax. This fee is payable in the fall semester. Students may also use the facilities of the Duke golf course upon payment of student green fees.

Duke Bar Association

A \$5 fee each semester is due and payable not later than the day of registration for a particular semester. This fee is utilized exclusively to support the activities of the student bar association.

Scholarship Assistance

The Law School recognizes that many meritorious students are unable to pay the full cost of their legal education, and, therefore, a number of University and endowed scholarships are awarded annually to assist students who merit recognition for past academic performance and who need financial aid. Each year the Law School fully commits its scholarship resources and continuous efforts are always underway to develop new sources for scholarship funds. Despite this, at present Duke Law School does not have the resources to provide scholarship assistance to all qualified students who are in need. Most students who need financial aid are required to rely heavily on loan funds.

A student seeking scholarship aid should file a financial aid application at the same time he files his application for admission. An attempt will be made to inform all scholarship applicants of both the admission and the scholarship decisions at the same time, although it is possible that decisions on some scholarship grants will be made later than the admission decisions. Whether an applicant has applied for a scholarship will not affect the admission decision of the Law School. Duke Law School requires all scholarship applicants to utilize the Graduate and Professional School Financial Aid Service (GAPSFAS). Applicants should request information on GAPSFAS by writing Graduate and Professional School Financial Aid Service, Box 2614, Princeton, New Jersey 08540.

University Scholarships. Duke University has established a number of University Scholarships that vary widely in amount. Except for a few that are based purely on merit, University scholarships are awarded only to needy applicants with superior college records and comparable Law School Admission Test scores. Most University scholarships awarded by the Law School cover part of the tuition charge. In cases of exceptional merit and need, a few scholarships may consist of full tuition and a stipend. The more usual form of financial aid for the gifted applicant is a combination of a scholarship and loan. Most of the endowed and University scholarship grants are renewable for second- and third-year students who maintained a 2.7 grade point average on a 4.0 scale in the previous academic year. It is expected that approximately one-half of the members of each first-year class will achieve a cumulative grade point average above 2.7 on a 4.0 scale at the conclusion of their first year. Loan assistance is provided in the event that a scholarship is not renewed.

Scholarships for Minority Students. Duke University has established a limited number of scholarships for qualified, needy minority group students. Further information on these awards will be sent upon request.

Phi Alpha Delta Fellowship Program. This fellowship was created by Phi Alpha Delta Law Fraternity for first-year minority students. Applications are not available to chapters until March 1, and the competition commences in late spring. Applicants need not be members. Ten students are selected annually, with each to receive a \$500 fellowship.

Endowed Scholarships. The following endowed scholarships are available to Law School students:

Beord-Rees Scholarship. This scholarship was established by classmates and friends in 1968 to honor the memory of Robert L. Beard and David W. Rees of the Law Class of 1964. The fund is used to assist students of all-round character and potential as a tribute to the high personal standards, professional excellence, and accomplishments of these men.

B.S. Womble Scholorship. The B.S. Womble Scholarship has been established by a distinguished Duke alumnus, B.S. Womble, and members of his family. The scholarship is awarded on the basis of moral character, scholastic ability, seriousness of purpose, and leadership potential of the applicant.

Elvin R. Latty Scholorship. Alumni and friends of the Law School established this fund in 1968 as a tribute to the wisdom, foresight, and dedication of Dean Emeritus Latty.

Jenny Ferrara Scholarship. This scholarship was established by Vincent L. Sgrosso of the Class of 1962 in memory of his grandmother. The scholarship is awarded on the basis of need augmented by academic excellence, leadership qualities demonstrated through extracurricular activities, and an earnest interest in pursuing a legal career.

John R. Parkinson Memorial Low Scholarship. This scholarship will be awarded at least biennially to a student whose prelaw achievements indicate a potential for academic excellence while in the Law School and a professional career in which outstanding service to clients and to the profession will be rendered.

Martha Garner Price Fellowship. This fellowship was created by a gift to the Rule of Law Research Center by the children of Ralph Price—the late Clay Price. Julian Price, and Louise (Mrs. Young Smith), in memory of their mother, Martha Garner Price. The purpose of this fellowship is to support advanced research in the field of international organization.

Richard M. Nixon Scholarship. This scholarship was established by an initial gift from the Class of 1937 to honor their classmate, former President Richard M. Nixon. The fund is growing rapidly and the first Nixon Scholar was named in the fall of 1973. This distinguished scholarship will be awarded only to students who show evidence of exceptional potential for leadership.

David H. Siegel Memoriol Scholarship. This scholarship was established by Allen G. Siegel of the Law Class of 1960 in memory of his father who was also an attorney. The first recipient of this award was selected in the fall of 1973, and a new award will be made each year.

Loan Assistance

After admission and scholarship decisions are made, prospective law students who need loan funds to help finance their legal education will be considered for such funds. Therefore, when an applicant receives his offer of admission he also knows exactly what financial aid is available to him. When the student confirms his place in the entering class and accepts our financial

aid offer, the appropriate loan application will be sent to the student. In no event should applications be filed later than July 1 prior to the beginning of the fall semester and November 15 prior to the beginning of the spring semester.

In addition to filing the Duke financial aid form, applicants for all loans administered or certified by Duke University are required to participate in the Graduate and Professional School Financial Aid Service (GAPSFAS). Information and application material for GAPSFAS can be obtained by writing Educational Testing Service, Box 944, Princeton. New Jersey 08540.

The following loan sources are either administered by Duke University or are available to Duke law students. Approval of any loan application is based on the financial need, satisfactory scholastic standing, and personal

integrity of the applicant.

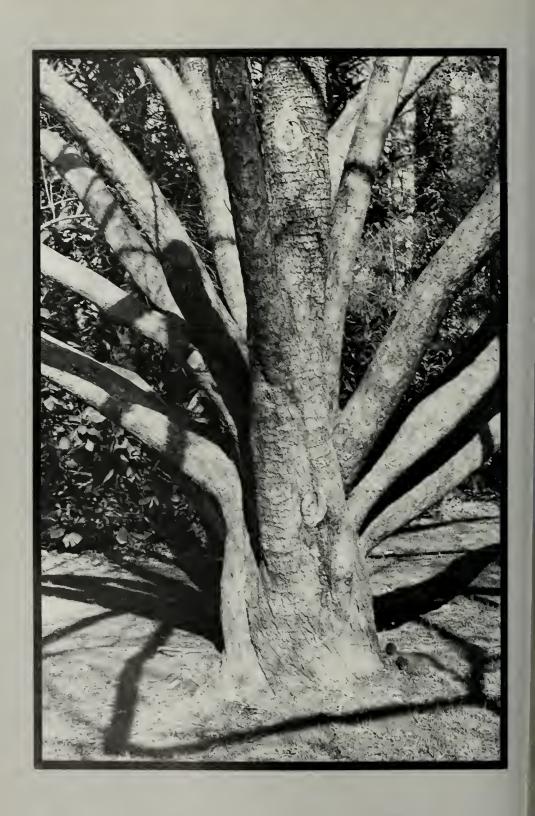
National Direct Student Loan Program Loans. Loans are available to Duke law students through the student loan program established under the National Direct Student Loan (NDSL) Program, assuming the continuation of appropriations by the Congress for this purpose. Interest on these loans begins to accrue at 3 percent nine months after the student leaves the Law School, and repayment usually begins ten months after the student leaves the Law School, with complete repayment scheduled over a period of up to ten years. Duke administers all NDSL loan funds allocated to it under strict federal guidelines dealing with such issues as the amount of parental income, reasonableness of budgets, complete disclosure of assets, and emancipation within the meaning of the applicable federal regulations.

Federally Insured Student Loan Program. The Duke University Program allows the student to borrow up to \$2,500 per year at a 7 percent interest rate. A student will have a maximum of ten years following graduation or withdrawal from the University to repay the loan. An interest subsidy is available from federal funds for all students who have demonstrated need on the GAPSFAS report. In order to qualify for the interest subsidy from the government, the GAPSFAS report must be submitted.

University Loans. In addition to the loans described immediately above, some limited financial assistance in the form of loans from funds held in trust by the University is available to qualified law students. Interest on these loans, which mature after the student has left the school, accrues from the date of each note at the rate of 1 percent until the student has left the school and for five years thereafter at 3 percent per year, with repayment installments over the five-year period.

Dean's Emergency Loans. Alumni gifts have created a special Dean's Discretionary Fund. In cases of immediate exceptional need, small noninterest-bearing loans are available for short periods to cover students who have temporary financial emergencies.

State Guaranteed Loans. Most states have established guaranteed loan programs for graduate and undergraduate study for their own residents. The terms of such loans, the methods of administration, and the availability of funds vary widely among the various states. The Law School will supply information regarding the appropriate agencies to contact in each state and will also make appropriate certifications in support of the loan applications of individual students applying for state guaranteed loans.



Scholastic Standards



Grading

The grading system of the Law School is a numerical system based on a 4.0 scale. Although grade distribution will vary from course to course, the normal distribution in an average class with a large (over forty students) enrollment will approximate the following:

| Numerical Grade | Percentage | | |
|-----------------|------------|--|--|
| 3.5-4.0 | 10-15 | | |
| 2.7-3.4 | 35-40 | | |
| 1.8-2.6 | 40-50 | | |
| 1.3-1.7) | | | |
| 1.0-1.2 | 0-10 | | |

Rank in Class

Information on rank in class is not released. Students are, of course, free to release their cumulative grade point averages as well as their individual course grades to prospective employers. If a student does choose to release such information, the prospective employer may verify the accuracy of such released information with the Law School.

Examinations

A written examination at the conclusion of each course is required, with the exception of seminars and certain specific courses usually involving research and drafting. As a rule, one examination is administered at the end of each course. Examinations are anonymously graded and are administered under the honor system.

Credit/No Credit Option

Second- and third-year students are permitted to choose courses up to a maximum of six hours per semester to be graded on a credit/no credit basis, subject to the limitation that no student may accumulate more than fifteen hours of ungraded credit during his academic career at Duke. Summer school hours and hours earned in courses taken in other divisions of the University are included in this total. Courses in the Law School which by faculty action are graded on a credit/no credit basis only do not count for this total. For students who wish to take two summer sessions, the fifteen-hour limitation may be increased to a maximum of twenty hours with special permission from the Dean. Students involved in joint degree programs within Duke University are permitted to take a maximum of twenty hours on a credit/no credit basis.

Students electing courses to be graded under a credit/no credit option receive a grade of credit if they achieve a numerical grade of 1.3 or better. Students receiving a numerical grade of 1.2 or less (or an F) receive a grade of no credit. Grades of credit and no credit are not averaged into a student's grade point average for any purpose, but appear on the transcript. A grade of no credit is not counted for purposes of the eighty-four hour requirement for graduation, but the hours count for purposes of meeting the twelve hour minimum course load for residence credit.

No academic credit is accorded the following programs: Duke Law Journal, Legal Research Program, and Moot Court Board.

Courses in Other Divisions of the University

Second- and third-year students may take courses offered in other divisions of the University upon the condition that the student is engaged simultaneously in at least ten semester hours of courses in the Law School. Credit (limited to a total of six hours) toward the J.D. degree will be granted for those courses which, in the judgment of the Dean, are related to the student's edu-



cation in the law. A written request for permission to enroll in a University course outside the Law School must be presented to the Dean. A grade of C (or S) or better will be transferred to the Law School on a credit/no credit basis. No credit will be awarded for a grade lower than C (or S).

Summer School

Students who wish to attend summer sessions at other law schools must submit a written request to the Dean for permission to do so. The request should state the name of the school and the courses to be taken. A grade of C (or S) or better will be transferred to the Law School on a credit/no credit basis. No credit will be awarded for a grade lower than C (or S).

Eligibility to Continue Law Study

Good Standing. Any student with an overall grade point average of 1.8 or higher shall be in good standing and entitled to continue the study of law.

Probation. Any student with an overall grade point average of less than 1.8 but not less than 1.7 and who has received failure grades in courses totaling not more than nine semester hours shall be placed on probation for the next two semesters.

Any student who in the second year receives failure grades in courses totaling six or more semester hours shall be placed on probation for the next two semesters.

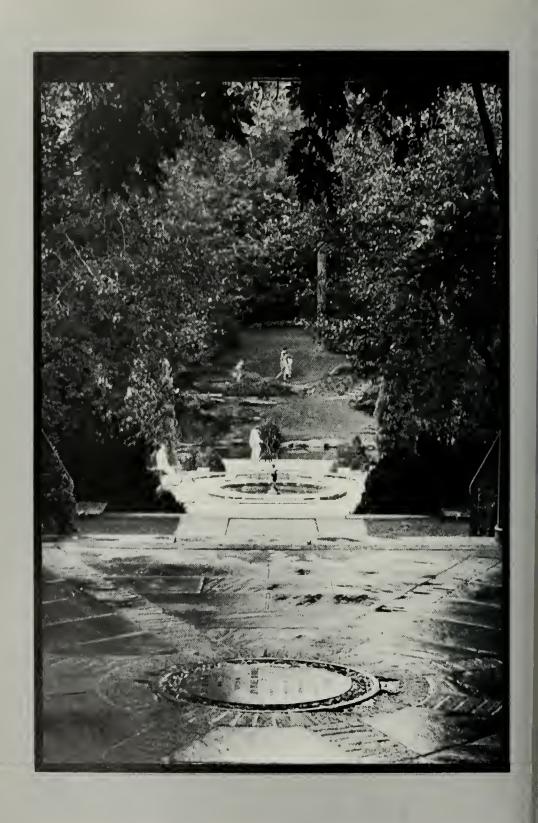
Every student on probation shall be subject to the special supervision of the Dean for the probationary period. The Dean may require that courses designated by him shall be taken by the student. A student on probation shall be ineligible to continue the study of law at this institution if at the end of the probationary period his overall average for all work undertaken at the Law School is not 1.8 or higher.

Repetition of First Year. Any first-year student with an overall grade point average of less than 1.7 but not less than 1.6 and who has received failing grades in courses totaling not more than nine semester hours shall be permitted to repeat the first year. At the option of the student, upperclass courses may be substituted for first-year courses in which a grade of 2.0 or higher was achieved. A student repeating the first year shall be eligible to continue the study of law only if he achieves a grade point average of not less than 1.8 for that year. Any student repeating his first year under this rule who achieves an average of 1.8 or higher, but less than 2.0, or achieves an average greater than 2.0 but receives a failure grade in one or more courses, shall be placed on probation and is subject to the provisions of the preceding paragraph.

If the student elects not to repeat the year he shall be given an opportunity to withdraw voluntarily from the School, and if he does not do so shall be declared ineligible to continue the study of law.

Ineligibility to Continue. Any first-year student with an overall grade point average of less than 1.6 or who has failed courses totaling more than nine semester hours of credit shall be ineligible to continue the study of law at this institution.

Notification of Unsatisfactory Scholastic Standing. The Dean shall inform each student who is not in good standing of his status, the requirements which he must meet to continue to be eligible for the study of law at this institution, and the requirements that he must satisfy to be eligible for graduation.



Registration and Regulations



Registration

All students are required to register on the dates prescribed in the Law School Calendar, at which time class schedules and course cards must be completed and approved. A student's registration for any semester is not complete until he has settled all indebtedness with the Office of the Bursar. A student is not eligible to attend classes or to make use of University facilities if he has any outstanding debt to the University.

A student may alter his registration by enrolling in or withdrawing from a course or changing the basis upon which he will be graded in the course during the first week of a semester without special permission. Alteration of registration after the first week is discouraged and is governed by rules promul-

gated by the faculty.

Registration for Bar Examination

Many states now require that a student, prior to or shortly after beginning the study of law, register with the Board of Bar Examiners of the state in which he plans to practice. This should be accomplished within thirty days after matriculation in law school. Students are advised to consult the rules of all states in which they may be interested in practicing after graduation.

Academic Regulations and Course Requirements

No student is permitted to take fewer than twelve course hours per semester without permission of the Dean. No first-year student may take courses in excess of the first-year program without permission of the Dean. Second- and third-year students are not permitted to take for credit more than sixteen course hours per semester, nor may they audit and take for credit more than seventeen course hours per semester without permission of the Dean.

No student will receive full residence credit if he takes for credit fewer

than ten hours per semester.







Rule Concerning the Submission of Grades

All grades for all courses and seminars must be submitted by faculty members on or before the twenty-eighth calendar day following the last day of the regularly scheduled examination period.

Rules Concerning Examinations and the Submission of Research Papers

No student may enroll in any course in which he has previously submitted a research paper or has taken the final examination except a student who failed the course and is required by the instructor to retake it, or who obtains the permission of the faculty to do so. The grade received in the second enrollment in the course will be substituted for the first grade received,







except that the highest grade for which a student shall be eligible on a retaking

of a course is a grade of 2.2.

No credit will be given a student for any research paper submitted in partial or full completion of the requirements of a course in which he is enrolled unless the paper is submitted on or before the first day of spring semester classes for a course given in the fall semester, and on or before the last day of the examination period for a course given in the spring semester, or on an earlier date if the faculty member requires it.

Except with the joint permission of the Dean and the faculty member involved, no student shall receive any credit for any examination taken in partial or full completion of the requirements of a course in which he is enrolled unless the examination is taken at the time it is regularly scheduled. Such permission shall be granted only in the case of sickness, extreme personal hardship, or a conflict in the scheduling of two or more examinations.

A faculty member may deny a student the right to take an examination in his course and may enter a failing grade for excessive absences or gross unpreparedness.

Rule Concerning Designation of Incomplete

Where a student is granted an authorized extension for completion of required course work, the instructor shall, in lieu of a grade, designate that the student's work is incomplete. Except where an extension is specifically granted for a longer period, a designation of incomplete will automatically be changed to a grade of 1.0 after thirty days or the beginning of the student's last semester in residence at the Law School, whichever is earlier.

Regulations Governing the Awarding of Degrees

Degrees are awarded at Duke University in September and May. The names of Duke Law School students who have successfully completed all of the necessary requirements for a degree are presented by the Dean to the University Secretary. The University faculty and the Board of Trustees meet in the early fall and just prior to the May graduation date to approve candidates presented for degrees.

Students who graduate in midyear from the Law School will not be awarded a degree until May, and, therefore, should ascertain whether they will be permitted to take the bar examination in the state in which they plan to practice before the degree is conferred.

The Honor System

The honor system of the Duke Law School demands the highest standards of academic and professional conduct. It is enforced by a student judicial code.

Rule Concerning Graduating in Absentia

Students who wish to be graduated in absentia should submit a written request to the Dean's office at least six weeks before graduation. In such cases, the diploma will be mailed.

General Rules of the University and the Law School

Students are subject to the rules and regulations of the University and the Law School which are currently in effect, or those which in the future may be promulgated by the appropriate authorities of the University. Every student, in accepting admission, indicates his willingness to subscribe to and be governed by these rules and regulations. He also acknowledges the right of the University to take such disciplinary action, including suspension and/or expulsion, as may be appropriate, for failure to abide by these rules and regulations, or for other conduct adjudged unsatisfactory or detrimental to the University.

Policy Concerning Pickets, Protests, and Demonstrations

Duke University respects the right of all members of the academic community to explore and to discuss questions which interest them, to express

opinions publicly and privately, and to join together to demonstrate their concern by orderly means. It is the policy of the University to protect the

exercise of these rights from disruption or interference.

The University also respects the right of each member of the academic community to be free from coercion and harassment. It recognizes that academic freedom is no less dependent on ordered liberty than any other freedom, and it understands that the harassment of others is especially reprehensible in a community of scholars. The substitution of noise for speech and force for reason is a rejection and not an application of academic freedom. A determination to discourage conduct which is disruptive and disorderly does not threaten academic freedom; it is, rather, a necessary condition of its very existence. Therefore, Duke University will not allow disruptive or disorderly conduct on its premises to interrupt its proper operation. Persons engaging in disruptive action or disorderly conduct shall be subject to disciplinary action, including expulsion or separation, and also to charges of violations of law.

The foregoing general statement of policy is not to be construed as limiting the University's right to maintain an atmosphere conducive to scholarship.

Motor Vehicle Registration

Each motor vehicle operated on Duke University campuses by students enrolled in the School of Law must be registered at the Traffic Office, 2010 Campus Drive, within five days after operation on the campus begins, and thereafter must display the proper registration decal. A registration fee of \$20 will be charged for each automobile and \$10 for each motorcycle.

To register a vehicle, the student must present the following documents: (1) valid state registration for vehicle registered, and (2) valid state operator's

license.

Parking, traffic, and safety regulations will be given to each student at the time of registration of his vehicle. Students agree to abide by these regulations in exchange for the privilege of operating a motor vehicle on the campus.





Curriculum



Degree Program

The curriculum at Duke Law School is not fixed and static. All courses are subject to constant evaluation, and the organization of the curriculum itself is subject to critical examination each year by the faculty. The curriculum organization for the academic year 1975-1976 is set forth below.

First-Year Curriculum

The first-year curriculum is required for all J.D. candidates.

| | | December | | May |
|------------------------------|------|-------------|--------|-------------|
| Courses | Fall | Examination | Spring | Examination |
| Civil Procedure | 3 | | 3 | X |
| Criminal Law | 3 | X | | |
| Contracts | 5 | X | | |
| Constitutional Law | 3 | | 2 | X |
| Torts | | | 5 | X |
| Property | | | 4 | X |
| Introduction to Legal Clinic | _1_ | | _1_ | |
| | 15 | 8 | 15 | 20 |

The first-year class will be divided unevenly for assignment to sections of each course. One or more sections of each first-year course will be small, with about twenty students. The other section of that course will contain the balance of the first-year class. Each first-year student will be assigned to one small section class and will study with the balance of his class in the large sections of all other courses. For example, if a student is assigned to the small section in Torts he will automatically be assigned to the large sections of his other first-year courses. The research and writing program will be organized in conjunction with the small sections of each course.

FIRST-YEAR COURSE DESCRIPTIONS

110. Civil Procedure. This course is devoted to a consideration of the basic problems of civil procedure. It is designed to acquaint students with the funda-

mental stages and techniques of litigation—e.g., pleading, discovery, trial, appeal, judgments, and multiparty actions—and to introduce them to underlying problems such as jurisdiction, choice of law in a federal system, and the role of courts as law-making institutions. 3 s.h. fall; 3 s.h. spring. Paschal and Rowe

- **120. Constitutional Law.** The distribution of, and limitations upon, governmental authority under the Constitution of the United States. Included are study of the doctrine of judicial review of legislative and executive action, the powers of Congress and the President, the limitations on state governmental powers resulting from the existence or exercise of congressional power, and judicial protection against the exercise of governmental power in violation of rights, liberties, privileges, or immunities conferred by the Constitution. 3 s.h. fall; 2 s.h. spring. *Dellinger, Levin, and Van Alstyne*
- 130. Contracts. The formation and legal operations of contracts, their assignment, significance to third parties, and relationship to torts, restitution, and commercial law developments; the variety, scope, and limitations on remedies; and the policies, jurisprudence, and historical development of promissory liability. 5 s.h. fall. DeMott and Weistart
- **140.** Criminal Law. An introductory study of the law of crimes and the administration of criminal justice; analysis of the criminal act and the mental element in crime; consideration of specific offenses as defined by statute and the common law; discussion of typical defenses in relation to specific crimes. 3 s.h. fall. Livengood, Price, and Shimm





160. Property. The basic concepts of real property law and conveyancing. Historical background; estates in land, including the fee simple, the fee tail with its statutory substitutes, the life estate, the estate for years and other non-freeholds; concurrent ownership; types of future interests; conveyances before and after the Statute of Uses, landlord and tenant; the modern deed—kinds, delivery, description, title covenants; and agreements running with the land at law and in equity; easements; recording and title registration. 4 s.h. spring. Reppy and Sparks

170. Torts. An analysis of liability for personal injuries and injuries to property. After considering "cause in fact," intentionally inflicted harm and the development from trespass to negligence, the course concentrates mainly on the negligence issue. The reasonable man standard, and its application and proof before courts and jury are explored. Limitations such as contributory negligence, lack of duty, and proximate cause are considered as are special rules governing owners and occupiers of land. The question of damages is analyzed; the course also examines strict liability, the liability of producers and sellers of products, insurance, and workmen's compensation. 5 s.h. spring. Christie and Lange

In addition, all students are required to undertake instruction in the duties

and responsibilities of the legal profession.

Second- and Third-Year Curriculum

In the absence of special authorization from the Dean, each student is required to take in each semester courses aggregating not less than twelve and not more than sixteen hours.

The program in the second and third years is entirely elective. In planning his elective program, the student should bear in mind that certain courses are prerequisites to other advanced courses:

Business Associations is a prerequisite to Business Planning, Securities Regulation, and the Seminar in Corporate Planning and Drafting.

Civil and Criminal Trial Practice is a prerequisite to the Clinical Seminar

in Criminal Justice Administration.

Corporate Taxation is a prerequisite to Business Planning.

Criminal Procedure is a prerequisite to Civil and Criminal Trial Practice. Evidence is a prerequisite to trial practice courses and clinical courses.

Estate and Gift Taxation and Trusts and Estates I and II are prerequisites to the Seminar in Estate Planning.

Labor Relations I is a prerequisite to Labor Relations II.

Labor Relations I and II are prerequisites to the seminars in labor law and internal union affairs.

Personal Income Taxation is a prerequisite to other tax courses.

Securities Regulation is a prerequisite to Business Planning.

Trusts and Estates I is a prerequisite to Trusts and Estates II.

The student should also bear in mind that, although the program in the second and third years is entirely elective, for logical course progression and in order to avoid conflicts in the class schedule, it would be advisable for certain basic electives to be taken in the second year and certain other electives in the third year. Advice is available in the Dean's office.

Clinical Education. In its continuing efforts to provide a broad legal education, Duke Law School has made a strong commitment to the development of clinical legal education. At the present time the clinical program is

staffed by a Director and three graduate fellows offering four-credit clinical courses in the administration of criminal justice, legal problems of older Americans, and poverty law. These courses combine simulation and gaming teaching techniques with closely supervised representation of indigent clients for maximum educational benefit to the students involved. Expansion of clinical education into new areas of the law is planned for the future. Substantial clinical experience is also available in the following courses and seminars:

Civil Trial Practice Civil and Criminal Trial Practice Seminar in Corporate Planning and Drafting Seminar in Estate Planning Seminar in Psychiatry and the Law Seminar in Legal Problems of a University

Second-Year—Recommended Courses

| Courses | Fall | | Spring |
|--------------------------|------|----|--------|
| Administrative Law | | | 3 |
| *Business Associations | 4 | OL | 4 |
| Commercial Law | 4 | Or | 4 |
| Corporate Taxation | | | 3 |
| *Criminal Procedure | 3 | ОГ | 3 |
| Estate and Gift Taxation | | | 2 |
| *Evidence | 3 | ОГ | 3 |
| *Labor Relations l | 2 | | |
| *Labor Relations II | | | 2 |
| Legal Accounting | | | 2 |
| Personal Income Taxation | | | 3 |
| *Trusts and Estates I | 4 | | |
| *Trusts and Estates II | | | 2 |

Other Electives

| Courses | Fall | Spring |
|---|------|--------|
| Admiralty | 3 | |
| Antitrust | | 4 |
| Business Planning | | 4 |
| Civil Trial Practice | | 2 |
| Civil and Criminal Trial Practice | 3 or | 3 |
| Civil and Criminal Trial Practice | 2 | |
| Conflict of Laws | 3 | |
| Consumer Protection | | 2 |
| Corporate Finance | | |
| Debtors' Estates | | 2 3 |
| Environmental Law | | 3 |
| Family Law | | 3 |
| Federal Courts | | 3 |
| International Law | 3 | Ŭ |
| International Business Transactions | | 3 |
| Labor Standards | | 2 |
| Land Use Planning | | 2 |
| Law and the Arts | 3 | - |
| Legal Profession | J | 1 |
| Modern Real Estate Financing | 3 | • |
| Personal Torts | | |
| Regulated Industries | 2 3 | |
| Securities Regulation | 3 | |
| State and Local Government (Urban Problems) | 3 | 3 |
| o data data doct i dovernment (Orban Floblenis) | | 3 |

^{*}For those intending to take advanced courses and seminars in area.

| Seminars | Fall | | Spring |
|---|------|-----|--------|
| Clinical Seminar in Criminal Justice Administration | 4 | 10 | 4 |
| Clinical Seminar in Law and Poverty | | | 4 |
| Clinical Seminar on Legal Problems of Older Americans | 4 | | |
| Community Property | 2 | | |
| Comparative Law | | | 2 |
| Corporate Planning and Drafting | 2 | 10 | 2 |
| Criminal Law | | | 2 |
| Criminal Procedure | 2 | | |
| Estate Planning | 2 | | |
| Federal Practice of Civil Rights and Civil Liberties | 3 | 10 | 2 |
| Internal Union Affairs | | | 2 |
| Labor Law | 2 | | |
| Law, Politics, and Legislation | 2 | | |
| Legal Issues in Health Care | 2 | | |
| Legal Problems of a University | | | 2 |
| Psychiatry and the Law | | | 2 |
| Racial Discrimination | 2 | | |
| Sex Discrimination | 2 | | |
| Independent Research | _ | and | |

Not Offered in 1975-1976

International Organizations Legal History Military Law Seminar in Communications Seminar in Public Schools Seminar in Sentencing and Corrections Seminar in Tax-Exempt Organizations Seminar in World Law Workmen's Compensation

In addition to the courses set forth above, the Law School encourages individual and small-group research and study for credit. Law students in their second and third years of the J.D. program may undertake up to four hours of independent research in any academic year if the research is approved by a faculty member. Research work will be graded on a credit/no credit basis. Students undertaking independent research will meet regularly with the faculty member supervising the research in order to ensure contemporaneous discussion, review, and evaluation of the research experience.

A group of five or more students may plan and conduct their own research and seminar program for not more than two semester hours of credit (which shall be considered to be independent research within the meaning of the maximum limitation of four hours of independent research each year). A request to establish such an ad hoc seminar should be addressed to the Dean at least two months before the beginning of the semester in which the seminar is proposed. The Dean will request a member of the faculty to evaluate the program and recommend whether the proposed program has academic merit. If approved by the Dean, a faculty member will be requested to evaluate the contribution of each participant before awarding credit. Such seminar work shall be graded on a credit/no credit basis.

Second- and third-year students may also take courses offered in other divisions of the University upon the condition that the student is engaged simultaneously in at least ten semester hours of courses in the Law School. Credit (limited to a total of six hours) toward the J.D. degree will be granted for those courses which, in the judgment of the Dean, contribute to the student's education in the law or professional interests. A grade of C (or S) or better will be transferred to the Law School on a credit/no credit basis. No credit will be awarded for a grade lower than C (or S).

All students are advised to study carefully the rules governing admission to the bar in each state in which they are considering practicing after graduation. Some states have specific requirements and others, such as New York, have detailed provisions relating to other matters.

UPPERCLASS COURSE DESCRIPTIONS

- **400. Admiralty.** The special body of law governing maritime affairs, especially the transportation of goods and passengers by water. Admiralty jurisdiction: marine insurance; carriage of goods; charger parties; general average; rights of injured seamen and others; collision; salvage; maritime liens and ship mortgages; limitations of liability; governmental activity in shipping. 3 s.h. fall. *Paschal*
- **200.** Administrative Law. Administrative agencies and legislative authority; information gathering and withholding; rulemaking and order-formulating proceedings; judicial review of administrative action; constitutional limitations on administrative powers. 3 s.h. spring. Fleishman
- **205. Antitrust**. A study of the federal antitrust laws and the policy of using competition to control private economic behavior. 4 s.h. spring. Havighurst
- 210. Business Associations. The process of incorporation, promoters, and pre-incorporation transactions, distribution of powers within that corporation, workings of the proxy system, special features of the close corporation, duties and liabilities of insiders, problems in connection with the purchase or sale of any security, shareholders derivative suits and related rights and comparison with general principles of agency and partnership. In addition: generalized treatment of financing of corporate enterprise, governmental regulations of distribution of public issues of securities, dividends, and other distributions to shareholders, fundamental changes by recapitalization, merger, and other combinations. (Special treatment of these topics is reserved for other courses and seminars, particularly Corporate Finance, Securities Regulation, and Business Planning.) 4 s.h. fall; 4 s.h. spring. O'Neal and DeMott
- 300. Business Planning. This course involves advanced work in corporation partnership and income tax law, securities regulation and accounting on a series of problems that commonly and currently face business lawyers in the formation and financing of business organizations, restructuring ownership interests and financing their withdrawal, share repurchases for insiders' strategy, sales and purchases of businesses, merger and other enterprise combination, enterprise division and dissolution. The problems are analyzed, and solutions are presented in class discussion and papers by an integrated approach that embraces the interplay of restraints posed by various areas of the law. Courses in Corporate Taxation and Securities Regulation are prerequisites to this course. 4 s.h. spring. Stolz
- 385. Civil Trial Practice. A study of the advocate in the trial of civil law suits, with emphasis on methods of pretrial preparation and development of facts in court. typical uses of rules of procedural and substantive law in trial proceedings, and tactical and ethical aspects of problems which confront the trial lawyers. 2 s.h. spring. Caffrey
- 380-1. Civil and Criminal Trial Practice. This course covers the same general subject matter as does the course in Civil Trial Practice and also

examines the problems facing the advocate in a criminal proceeding. 3 s.h. fall; 3 s.h. spring. *Bocchino*

- **380-2.** Civil and Criminal Trial Practice. This course covers the same general subject matter as does the course in Civil Trial Practice and also examines the problems facing the advocate in a criminal proceeding. 3 s.h. fall. Bracy
- 380-4. Civil and Criminal Trial Practice. This course covers the same general subject matter as does the course in Civil Trial Practice and also examines the problems facing the advocate in a criminal proceeding. 3 s.h. spring. Sheffield
- 380-5. Civil and Criminal Trial Practice. This course covers the same general subject matter as does the course in Civil Trial Practice and also examines the problems facing the advocate in a criminal proceeding. 2 s.h. fall. Johnson
- 215. Commercial Law. This integrated study of the law governing commercial transactions emphasizes the application of the Uniform Commercial Code, particularly the articles dealing with sales, secured transactions, and commercial paper. A primary objective of the course is the development of an analytical basis for interpretation of this statute. The business judgments of commercial practice provide an interpretative framework. The structure of typical transactions is emphasized to suggest both the interrelation of the several articles of the Code and the relevance of other statutory and decisional law. Topics which are given particular emphasis include the enforceability of limitations on sales warranties, the optional nature of remedies for the breach of sales contracts, the function of common forms of commercial paper, the mechanics of the bank collection process, and the operation of retail systems. 4 s.h. fall; 4 s.h. spring. Shimm and Weistart
- **310.** Conflict of Laws. A study of the special problems which arise when the significant facts of a case are connected with more than one jurisdiction. Recognition and effect of foreign judgments; choice of law; federal courts and conflict of laws; the United States Constitution and conflict of laws. 3 s.h. fall. Reppy
- **220.** Consumer Protection. Trends in laws affecting retail buying and selling of goods and services. The course will focus on problems involving purchases of personal property, especially by the poor and uneducated, with some attention also given to purchases of realty and services. The area of product quality and liability will also be explored briefly. 2 s.h. spring. Bentley
- 315. Corporate Finance. Diverse characteristics of shares and creditor securities, consideration and payment of shares, rights and option in shares, capital and surplus and related accounting concepts, limitations on dividends and share repurchases, impact of federal regulation on promoter's role and public-issue financing, anatomy of merger, asset and stock acquisitions, alteration and combining of corporations. 2 s.h. spring. O'Neal
- **320. Corporate Taxation**. A selection of substantial income tax problems affecting corporations and shareholders. 3 s.h. spring. *Philipps*
- **224.** Criminal Procedure. A study of the basic elements of criminal procedure, with special emphasis upon constitutional requirements, including arrest, "stop and frisk," search and seizure, electronic surveillance, the preliminary hearing, bail, criminal discovery, plea bargaining, and prosecutorial discretion. 3 s.h. fall; 3 s.h. spring. Pye and Everett

- 325. Debtors' Estates. Comparative study of methods used for the liquidation and distribution of debtors' estates. The nonbankruptcy materials cover individual creditors' rights by attachment, garnishment, execution, creditors' hills, and supplementary proceedings; common law compositions and extension; and general assignments. The bankruptcy materials cover, in the main, the first seven chapters of the Bankruptcy Act. 3 s.h. spring. Shimm
- 327. Environmental Law. A study of recent statutes and cases related to environmental management and natural resource protection. Emerging national environmental policy is examined within its social, economic, and ecological context. 3 s.h. spring. *Wallace*
- **330.** Estate and Gift Taxation. The principle emphasis of the course is on the federal estate and gift taxes. Consideration is also given, however, to the related portions of the federal income tax dealing with the taxation of the income of estates and trusts. 2 s.h. spring. Luther
- **225.** Evidence. A study of the theory and rules governing the presentation of evidence to a judicial tribunal including the function of the judge and jury; the concept of relevancy; character evidence, judicial notice; real and demonstrative evidence; authentication of writings, the best evidence rule; competency, impeachment, and rehabilitation of witnesses; hearsay and the exceptions to its exclusion; privileged communications. 3 s.h. fall; 3 s.h. spring. Bocchino and Pye



- 335. Family Law. Developments in the relationship between the state and the family. The course will survey the spectrum of family relationships and activities regulated in some fashion by the state, including procedures for marrying, legal relationships within an on-going family, and problems in the dissolution of the family. Special emphasis will be placed on agreements concerning the custody of children and property settlements on divorce. There will be some discussion of the family as seen by other behavioral disciplines. 3 s.h. spring, S. Lewis
- **340.** Federal Courts. A study of the federal courts with respect to the part played hy them in achieving a workable federalism. Special attention will be given to the original jurisdiction of the federal district courts, the relationship of the federal courts to state courts and state law, and the permissible and desirable range of federal judicial power. 3 s.h. spring. *Paschal*
- **345. International Business Transactions.** Legal framework of United States foreign trade and investment; foreign trade and investment laws of selected foreign countries; function of international economic law; international economic agreements; problems of foreign trade and investments. 3 s.h. spring. *Grzybowski*
- **230.** International Law. A survey of public international law of peace, as evidenced especially in decisions of national and international courts; the drafting and interpretation of treaties; the nature of handling of international claims; the organization and jurisdiction of international tribunals with special reference to the International Court of Justice; developments with respect to the codification of the law. 3 s.h. fall. *Grzybowski*
- **235.** Jurisprudence. A historical examination of the development of legal philosophy from ancient times to the contemporary period. 3 s.h. fall. Christie
- 240. Labor Relations I. This course, in combination with Labor Relations II, is envisioned as an integrated, full-year, two-hour program in basic labor relations law. However, it is recognized that some students are primarily interested in other fields and want only enough labor law to enable them to recognize a labor problem when they see one and to know when to consult a specialist. Consequently, Labor Relations I can be taken independently. Its core is the establishment of the collective bargaining relationship—with emphasis upon the organizational process and the law relating to strikes, lockouts, picketing, boycotts, and unfair labor practices. A concerted effort is made to include enough collective bargaining law to avoid leaving the distorted impression that labor relations consist exclusively, or even primarily, of economic warfare. 2 s.h. fall. Livengood
- 245. Labor Relations II. It is anticipated that most students who take Labor Relations I will continue with Labor Relations II, and the former is a prerequisite to the latter. The primary focus of the course is upon the negotiation and administration of collective agreements after the bargaining relationship has been established. Attention is given to the duty to bargain (its nature, scope, and duration), the terms of the labor-management contract, and procedures for orderly dispute settlement (arbitration, mediation, judicial enforcement, etc.). As time permits, some consideration is given to the "frontiers" of labor law—public sector bargaining, national emergency disputes, internal union affairs, individual employee rights, etc. Obviously, the line between Labor Relations I and II is artificial and amorphous, and it will not always be drawn in the same place. It is contemplated, however, that the student who has taken

Labor Relations I, Labor Relations II, Labor Standards, and the Seminars in Labor Law and Internal Union Affairs will have had a fairly comprehensive exposure to the major areas of elementary labor law. 2 s.h. spring. Livengood

- 350. Labor Standards. Government regulation of conditions of employment, including the Fair Labor Standards Act and other wage-hour and child-labor statutes, unemployment insurance, workmen's compensation, equal employment opportunity, and other social security legislation, and related laws establishing minimum standards for the creation, continuance, and termination of the employment relationship. In addition to other objectives, the course will seek to develop skills in legislative advocacy and procedure and in the drafting and interpretation of statutes. 2 s.h. spring. Livengood
- 355. Land Use Planning. A survey of legislative, administrative, and judicial controls utilized to facilitate the orderly development and redevelopment of real property. This consideration will include public and private nuisance, zoning, subdivision control, housing codes, street mapping, and condemnation. The clash of individual and societal interests in land use is explored through cases involving the distinction between valid police power regulations and "takings" for public use which require payment of compensation. Problems of urban renewal, regional planning, and pollution of water and air also receive consideration. 2 s.h. spring. Everett
- 357. Law and the Arts. An introduction to basic problems in entertainment law, the area of speciality practice involving the representation of publishers, broadcasters, cable television operators, film producers, artists, writers, musicians, and performers. The course includes detailed instruction in the law of copyright as well as unfair competition in artistic works, the protection of ideas, the right of publicity and performers' rights, and selected aspects of defamation and invasion of privacy. 3 s.h. fall. Lange
- 250. Legal Accounting. An examination and analysis of accounting principles and practices necessary for understanding and investigating facts relevant to a variety of legal problems. The course is designed to familiarize students with the language of accounting, what it discloses and what it leaves unsaid, and how the work of accountants is used by government in regulation of business, by business managers in making decisions, by lawyers in solving legal problems, and by investors and lenders in managing and protecting their property. 2 s.h. spring. Luther
- **410**. **Legal History**. A study of the development of fundamental English and American legal institutions. (Not offered 1975-1976.)
- **360.** Legal Profession. A study of the function of lawyers; the organization of legal education and the profession, legal relations between lawyers and clients including fee arrangements, and lawyers' liability for malpractice; standards of professional conduct; techniques for making legal services available, role of lawyers in litigation, negotiation, counseling, and politics. 1 s.h. spring. Pye
- 365. Modern Real Estate Financing. An examination of techniques of real estate financing including conventional mortgages, subdivision development, and federal assistance to real developers. 3 s.h. fall. Everett
- 255. Personal Income Taxation. An introduction to federal income taxation, with emphasis on the determination of taxable income of business, the character of the income realized, and the proper taxpayer on which to impose the tax. 3 s.h. fall; 3 s.h. spring. Luther and Philipps

- 415. Personal Torts. A study of the law of defamation, privacy, and infliction of emotional distress from the point of view both of tort law and constitutional law. The availability of tort actions to redress violation of constitutional rights will also be examined. 2 s.h. fall. Christie
- **370.** Regulated Industries. A study of government economic regulation in such regulated industries as transportation, broadcasting, and power, with emphasis on control of entry, mergers, and rates. 3 s.h. fall. *Havighurst*
- 375. Securities Regulation. A study of the federal and state securities laws and the industry they govern with emphasis on the mechanics and regulation of the distribution process and trading in securities; subjects dealt with include the functions of the Securities and Exchange Commission, registration and disclosure requirements and related civil liabilities, "bluesky" laws, proxy solicitation and reporting requirements, broker-dealer regulation, the self-regulatory functions of the exchanges, and the regulation of investment companies. 3 s.h. fall. Stolz
- **390. State and Local Government (Urban Problems).** This course examines the allocation of governmental power, as among different types of local entities and between state and local governments. The role of the federal government is also examined. The impact of the institutional relationships and constraints on contemporary social problems will be studied, with special emphasis on the financing and delivery of public services. 3 s.h. spring. Levin
- 265, 270. Trusts and Estates I and Trusts and Estates II. Noncommercial property dispositions, both testamentary and inter vivos, including the following topics: the state system, trusts, and powers of appointment as instruments for estate planning; intestate succession; execution and revocation of wills; creation of trusts; class gifts and construction; ademption and lapse, integration of dispositive schemes; charitable trusts; resulting trusts; remedies for wrongful interference with succession and transfer; problems in trust administration; rules against perpetuities, accumulations, and restraints on alienation. (Students may take one or both semesters, except that Trusts and Estates I is a prerequisite to Trusts and Estates II. Contracts and Property are both prerequisites to Trusts and Estates I.) Trusts and Estates I, 4 s.h. fall. Sparks. Trusts and Estates II, 2 s.h. spring. Sparks
- **547. Workmen's Compensation.** This course covers the main elements of workmen's compensation law in the United States, together with questions of conflict of laws, third-party actions, and coordination with other social insurance programs. (Not offered 1975-1976.)

SEMINAR DESCRIPTIONS

521. Clinical Seminar in Criminal Justice Administration. An examination of the criminal justice system from the point of view of the criminal justice practitioner. Using simulation and gaming techniques, students will participate as attorneys in a mock case from initial interview through trial covering all aspects in the development of criminal litigation. The class will also examine the administration of criminal justice following a systems approach with emphasis on the need for interaction of police, courts, and corrections. The clinical phase of the seminar requires each student to practice with criminal justice practitioners pursuant to the North Carolina Rules Governing Practical Training of Law Students. Placements include Solicitor's Offices, U.S. Attorney Offices, police legal advisers, and private defense counsel. 4 s.h. fall. Bracy. 4 s.h. spring. Bracy and Sheffield

- 526. Clinical Seminar in Law and Poverty. An examination of the social and legal problems of people at an economic disadvantage, with emphasis on the elderly, assistance recipients, and the working poor. There will be an indepth study of income redistribution programs and related governmental responses to poverty. Course work includes readings, simulations of interviews, counseling, negotiations and administrative advocacy, field research, and a placement with Older Americans Resources and Services Program, the Legal Aid Society, or similar community-based program. 4 s.h. spring. J. Lewis
- 522. Clinical Seminar in Legal Problems of Older Americans. Interdisciplinary clinical seminar exploring legal and social problems of older people in our society. Class work includes simulated exercises on interviewing, counseling, negotiation, and legislative, administrative, and public interest advocacy. Substantive law covered includes social security, supplemental security income, health services, commitment and competence, income taxation of the elderly, and problems of death and dying. Class members work with legal services lawyers, sociologists, and doctors at the Older American Resource and Services Center, or legislators in the North Carolina General Assembly. 4 s.h. fall. J. Lewis
- **503**. **Seminar in Communications**. An in-depth study of government regulation of news media and other legal problems involving the publication and broadcasting industries. (Not offered 1975-1976.)
- 218. Seminar in Community Property. The marital property law of Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, and Washington; comparison to Spanish system. Students elect one state's law to research weekly problems. 2 s.h. fall. Reppy
- 512. Seminar in Comparative Law. An examination and comparison of the law of selected jurisdictions on certain specific topics. The history, sources, and methods of the civil law will be investigated, discussed, and compared with those of common law countries, with specific emphasis on administrative law and procedure, social welfare programs, and judicial review of administrative action. 2 s.h. spring. *Grzybowski*
- 505. Seminar in Corporate Planning and Drafting. The student is given hypothetical corporate problems (perhaps taken from the practicing lawyer's desk) on a client's proposed course of action; each problem is designed to require the student to grasp the business situation and goals involved, analyze for pertinent legal principles, plan the transaction to avoid legal business (including taxation) pitfalls, plan the requisite steps to consummate the desired transaction, draft the appropriate papers, and present his research. 2 s.h. fall; 2 s.h. spring. O'Neal and Stolz
- 510. Seminar in Criminal Law. Current problems in administering criminal justice, including studies of theory and technique in criminal procedure (investigation, prosecution, and defense of criminal charges), inquiry into basic policy in the use of criminal sanctions for the promotion of public order, consideration of contemporary developments (legislative, judicial, and administrative) in criminal law, and analysis of specific problem areas such as mental responsibility, sexual deviation, attempts, and vicarious liability. 2 s.h. spring. Livengood
- 560. Seminar in Criminal Procedure. Investigation of crime and the police practices pertinent thereto, including detention and arrest, interrogation, search and seizure; exclusionary rules of evidence; motions for continuance, change

of venue, and challenges to the jury; problems of the indigent defendant; discovery problems in criminal trials; post-trial appellate procedures. 2 s.h. fall. Everett

- **515. Seminar in Estate Planning.** Seminar devoted to problems and techniques of tax and estate planning. 2 s.h. fall. Powe and Sparks
- 500. Seminar in the Federal Practice of Civil Rights and Civil Liberties. A combination of advanced constitutional law and federal practice, working through a series of problems to provide: (a) familiarity with the principal federal statutes (procedural, substantive, and remedial) used in civil rights litigation; (b) their judicial interpretation and application; and (c) a consideration of frontier constitutional issues. 3 s.h. fall; 2 s.h. spring. Van Alstyne and Rowe
- 520. Seminar in Internal Union Affairs. The focus of the seminar is on the internal functioning of labor organizations, with particular emphasis on the application of the Labor-Management Reporting and Disclosure Act of 1959 and that segment of federal decisional law under the Labor-Management Relations Act which considers a union's obligations to its membership. Class sessions are topically structured to consider the union's duty of fair representation, its authority to discipline individual members, its obligations with regard to internal elections and financial integrity, and the limitations upon its demand of loyalty from its membership. Consideration is also given to the relationship of the local union to its international body. 2 s.h. spring. Weistart
- **563. Seminar in International Organizations.** This course explores the principal legal questions, including current controversies, affecting the United Nations and other international organizations. 2 s.h. fall. *Larson*
- **525. Seminar in Labor Law.** An intensive examination of significant problems in collective bargaining, union-management relations, and labor dispute settlement, with emphasis upon the drafting and interpretation of contract clauses, theories and techniques in contract negotiation, grievance handling, voluntary arbitration, and other procedures for the adjustment of disputes, comparison of collective bargaining in the public and private sectors, and the interrelation of the legal and economic aspects of labor problems. 2 s.h. fall. *Livengood*
- **356.** Seminar in Law, Politics, and Legislation. An examination of the statutory and constitutional regulation of political activity. Topics include lobbying, campaign practices, campaign financing, political influence in administrative decision-making, conflict of interest, as well as others. 2 s.h. fall. Fleishman
- **528.** Seminar in Legal Issues in Health Care. Beginning with the health care delivery system and the legal problems it presents, the seminar will direct attention to licensing and other controls over physicians and other health personnel, the law of medical malpractice and other mechanisms for assuring quality of care, the role of law in the function of the health care marketplace, and proposals for national health insurance or other fundamental reform. 2 s.h. fall. *Havighurst*
- **358.** Seminar in Legal Problems of a University. A problem approach to the issues raised by the transaction of business by a university. 2 s.h. spring. *Haslam*
- **527. Interdisciplinary Seminar in Medical-Legal-Ethical Issues.** A seminar composed of students and faculty from the Medical, Law, and Divinity Schools

for critical consideration of selected pertinent issues of mutual professional interest. 2 s.h. spring. Gallemore (Medical), Shimm (Law), and Smith (Divinity)

- 570. Seminar in Military Law. A study of military jurisdiction, the rights of military personnel, the body of both substantive and procedural law that has developed under the Uniform Code of Military Justice; in addition to its other goals, the seminar will seek to develop skills in statutory interpretation and to encourage comparisons between civilian and military criminal law administration. (Not offered 1975-1976.)
- **530.** Seminar in Psychiatry and the Law. An inquiry into the relationship between the science of psychiatry and various facets of civil and criminal law. 2 s.h. fall. M. Shimm and C. Shimm
- 535. Seminar in Public Schools. This course examines public elementary and secondary education from two perspectives. The initial focus is on the institutional and legal framework—the organization, financing, and governance of public schools and their relationship to other governmental bodies. The second part of the course examines education and the educational system from the perspective of the individual student. The various concepts of equal educational opportunity—equal resources, equal treatment regardless of race or color, equal outcomes—are reviewed. (Not offered 1975-1976.)
- 573. Seminar in Racial Discrimination. This seminar examines the legal aspects of the principal areas of racial discrimination—political and legal rights, public accommodations and facilities, education, employment, and housing—with emphasis on recent federal statutes and Supreme Court decisions. 2 s.h. fall. Larson
- **540.** Seminar in Sentencing and Corrections. An examination and discussion of postconviction disposition of criminal offenders. (Not offered 1975-1976.)
- **575. Seminar in Sex Discrimination.** The principal forms of sex discrimination are covered, including legal, political, educational, personal, and marital, with the major portion of the seminar concentrating on sex discrimination in employment. 2 s.h. fall. *Larson*
- **581. Seminar in Tax-Exempt Organizations.** A study of the exemption from federal income tax accorded to a variety of public and private organizations and the tax treatment of contributions to such organizations, the public policies underlying the exemption from tax and deductibility of contributions, and the broad new enforcement powers to be undertaken by the Internal Revenue Service. (Not offered 1975-1976.)
- 583. Seminar in World Law. The emphasis of this course is on those aspects of national and international law which have an important influence on weakening or strengthening a world legal order. The course does not duplicate the material in the regular course on international law. (Not offered 1975-1976.)

COURSES IN OTHER DIVISIONS OF THE UNIVERSITY

The courses in other divisions of the University which are listed below will be of particular interest to law students.

Public Policy Sciences 221. Analytical Methods I: Forecasting Consequences of Policy Alternatives. The decision analysis approach as a strategy for policymaking; uses and limitations of deterministic, probabilistic, unitary,

and interactive models for guesstimating the consequences of policy alternatives, including modeling techniques for structuring policy problems and statistical techniques for gathering and processing data for models. 3 s.h. fall. Fischer

Public Policy Sciences 222. Analytical Methods II: Appraising Consequences of Policy Alternatives. Various methods for appraising and weighing the consequences of policy alternatives, including the uses and limitations of economic utility theory, probabilistic preference theory, time preferences, multiattribute preference trade-offs, cost/effectiveness analysis, cost/benefit analysis, scoring systems, performance indices, objective functions, indifference curves, Pareto optimality, market and shadow prices, willingness to pay consumer's surplus; concludes with a discussion of some formal decision analysis and mathematical programming. Prerequisite: Public Policy Sciences 221. 3 s.h. fall. Vaupel

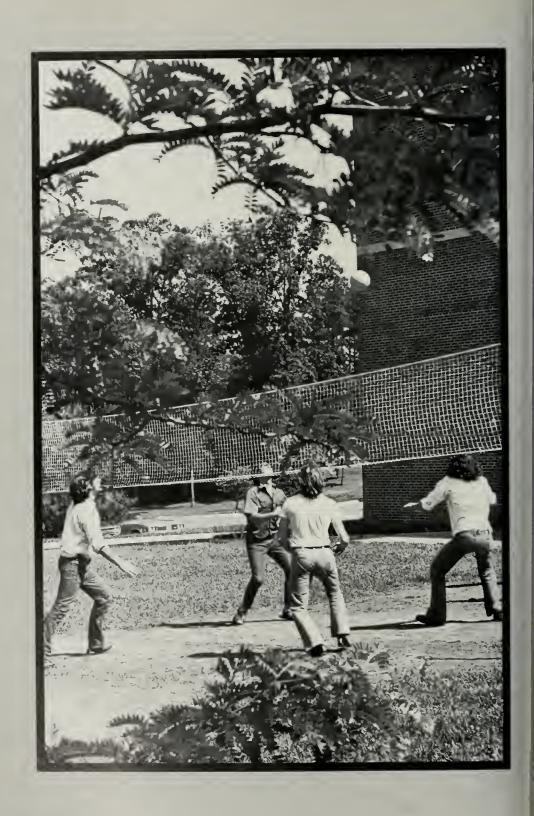
Public Policy Sciences 223. Ethics and Policymaking. Normative concepts in politics—liberty, justice, the public interest—in terms of historical and philosophical roots, and implications for domestic policy. 3 s.h. spring. Price

Public Policy Sciences 224. Administrative and Organizational Theory. A behavioral analysis of public organizations with emphasis on the impact of organizational structures, individual needs and motivation, and politics on the formulation and implementation of public policy. 3 s.h. fall. Hawley

Public Policy Sciences 340. Public Policy Research Seminar: The Administration of Justice I. An introduction to significant policy issues in the field. Students are expected to engage in, or prepare for, a major research study the content of which will be developed in consultation with the faculty involved in the course. 3 s.h. spring.

Anthropology 268S.1. The American Indian and the Law. An analysis of the development of federal Indian policy, the relations between states and their Indian citizens, and major legal decisions affecting native Americans. Topics will include treaty rights, Indian property rights, claims settlements, tribal courts, federal administrative power, and policy proposals. 3 s.h. fall. Rosen

Anthropology 262S.1. Anthropology of Law. An analysis of the relations between formal legal institutions and their social and cultural context. Special attention will be given to the development of legal institutions in the new nations. Topics include morality and legal decisions, law in stateless societies, conciliations practices, codification and customary law, and the role of the social scientist in legal proceedings. 3 s.h. spring. Rosen



Student Life



The University

Duke University has an enrollment of 9,753 students from all fifty states and many foreign countries. Trinity College, the Graduate School, the Graduate School of Business Administration, the Schools of Divinity, Engineering, Forestry, Law. Medicine, Nursing, and Duke Hospital are the major components of the University. The University is about two miles from the business district of Durham and is situated on wooded hills constituting part of the 8,000-acre Duke Forest.

Durham, with a population of approximately 100,000, is in the Piedmont region of North Carolina. Although Duke Law School is not located in a major metropolitan area, the resources of the combined Durham-Chapel Hill-Raleigh area approximate those of many urban areas. Each of these cities contains a major university. The physical proximity of Duke to the University of North Carolina, only eight miles away, and North Carolina State University, twenty-five miles away, makes Chapel Hill and Raleigh readily available for shopping and social and cultural activities. The "Triangle" area has a total combined student population of over fifty thousand students. A large facility of the Environmental Protection Agency is located in the Research Triangle Park, a developing area south of Durham. Durham is noteworthy among Southern cities for its thriving Black business community including the headquarters of a major Black insurance company.

Living Accommodations

Housing. The majority of law students, both married and single, live in private off-campus housing. Apartments in Durham are plentiful and by national standards inexpensive. Good roads and the absence of heavy traffic make commuting to the Law School from a considerable distance easy. This enables students to choose from a wide variety of housing types. A full range of housing from ultra-modern apartments to rustic cottages is located within minutes of the School. Students desiring to live in off-campus housing may obtain from the

Assistant Dean's office in mid-summer a list of similarly situated incoming students with whom they will be able to share housing expenses. Both married and single students desiring to live off-campus should plan to come to Durham one to two weeks early to find housing.

Campus housing in the Graduate Center and in apartments is described in

the chapter on Financial Information.

Opportunities to serve on the residential staff in undergraduate dormitories are available. The living accommodations vary in different dormitories, but usually consist of a single room or a two-room apartment. The positions also provide financial assistance. Interested students or spouses should contact the Office of the Dean of Students, 121 Allen Building, Duke University, Durham, North Carolina 27706. Interviews are held in the spring.

Dining Facilities

Dining facilities are located in the Union Building, within easy walking distance of the Law School. The cost of food for the academic year will average approximately \$875 if a student dines in University cafeterias.

A large number of law students prefer to bring their lunches from home and eat in one of the student lounge areas in the Law School. Vending machines are

located in the basement.

Placement Service

Placement of Duke Law School students and graduates is the concern of an active Placement Office located in the Law Building. Its staff is composed of one full-time director, one full-time assistant, and several student assistants. The activities of the Placement Office can be broken down into three general categories: coordination of an extensive on-campus recruiting season, production of the Placement Bulletin and other publications designed to introduce the Law School and its students to the legal community, and custodial responsibility for a wealth of materials on legal careers, available positions, bar membership, and other related areas.

The on-campus recruiting season takes place primarily during the fall of the year when about 180 employers send representatives to interview members of the two upper classes. As a result of these interviews a large number of students in each of these classes receive offers of employment.

Duke was the first law school to initiate a Placement Bulletin, a type of publication since adopted by a number of other schools. The Placement Bulletin, now in its twenty-fifth edition, contains the pictures and brief résumés of the graduating and second-year students. It is widely circulated among selected law firms, companies, government agencies, and other potential employers.

As the repository for a vast amount of information which is of interest to every student in the Law School, the Placement Office accepts the responsibility of encouraging students to explore the variety of careers available to them and of teaching students about job-hunting as well. Orientation meetings for students in all three classes are conducted by members of the staff, upper-class students, and invited speakers. The information on file in the office includes an extensive list of inquiries from employers in all parts of the country who are unable to interview at the Law School. A file of background information is maintained for every employer who has been in contact with the Law School during the past few years.

Finally, it must be remembered that the students themselves are primarily responsible for finding employment. They must be willing to devote a large

amount of their time to letter writing and to interviewing, both on and off campus. The students at Duke continue to enjoy great success in obtaining suitable employment in an increasingly tight job market. Almost all students in the upper two classes accept positions either in private practice, government, or other law-related employment by the end of the school year. The market for first-year legal clerks has been increasing, but it does not yet approach the size of the market for second-year clerks.

Student Health

One of the prerequisites for gaining the most from the University experience is a sense of well-being. The aim of the University Health Service is to provide medical care and health advice necessary to help the student enjoy his privilege of being a part of the University community. To serve this purpose, both the University Health Services Clinic and the University Infirmary are available for student health care needs.

The main components of the Health Service include the University Health Services Clinic, located in the Pickens Building on West Campus, and the University Infirmary on the East Campus. Emergency transportation, if required, can be obtained from the Duke Campus Police. Residential staff personnel should be consulted if possible for assistance in obtaining emergency treatment.

The facilities of the University Health Services Clinic are available during both regular and summer sessions to all currently enrolled full-time students. The facilities of the University Infirmary are available during the regular sessions only from the opening of the University in the fall until graduation day in the spring to all currently enrolled full-time students.

All regularly matriculated law students of the University who have paid full

tuition are entitled to the student health benefits.

Students are not covered during vacations, and their dependents and mem-

bers of their families are not covered at any time.

The resources of the Duke University Medical Center are available to all Duke students and their spouses and children. Charges for any and all services received from the Medical Center are the responsibility of the student as are the charges for services received from physicians and hospitals not associated with Duke University.

The Student Mental Health Service is located in the Pickens Building. Under the direction of Dr. W.J. Kenneth Rockwell, it provides evaluations, brief counseling, and/or treatment for matters ranging from questions about normal

growth and development to the most serious psychiatric disorders.

The University has made arrangements for a Student Accident and Sickness Insurance Plan to cover all full-time students for a twelve-month period. For additional fees a student may obtain coverage for a spouse or a spouse and child. Participation in this program is on a waiver basis. The University expects all students to be financially responsible for medical expenses above those covered by the University Student Health Program through the University Accident and Sickness Policy, a private policy, or personal financial resources. Students who have equivalent medical insurance or wish to accept the financial responsibility for any medical expense may waive the Duke Plan by signing a statement to this effect. Each full-time student in residence must purchase this student health insurance or sign a waiver before his registration is complete. The Student Accident and Sickness Policy provides protection twenty-four hours per day during the full twelve-month term of the policy for each student insured. Students are covered on and off campus, at home, or while traveling between home and school, and during interim vacation periods. Coverage under the policy begins

on the opening day in the fall. Coverage and services are subject to change each year as deemed necessary by the University in terms of costs and usage.

Professional and Honorary Organizations

Order of the Coif. The Order of the Coif is a national legal scholarship society with a local chapter at Duke University School of Law. Its purposes are "to foster a spirit of careful study and to mark in a fitting manner those who have attained a high grade of scholarship." Election is restricted to the upper 10 percent of the graduating class who have attained the most distinguished academic records in their law school work.

The Duke Bar Association. The Duke Bar Association coordinates the professional, social, and other extracurricular activities of the student body. The association resembles in its composition and purpose both a university student government and a professional bar association. It manages the speakers program, publicizes Law School activities, and sponsors athletic and social programs. Dues are \$5 per semester, payable at registration.

Legal Research Program. The Legal Research Program, supervised by a student editorial board, provides second- and third-year students with an opportunity to prepare legal memoranda on actual problems submitted by practicing lawyers, judges, or legislative committees. The program also assists in providing representation to indigents in appeals from denials of petitions for habeas corpus in the United States Court of Appeals for the Fourth Circuit. The briefs are written by the students under the supervision of a member of the faculty.

Moot Court Board. The Moot Court Board is composed of second- and third-year students who are chosen on the basis of their performances in intramural Moot Court competition. The Board supervises the Hardt Cup and the Dean's Cup competitions. In addition, the Board provides personnel for teams entering intercollegiate competition.

International Law Society. The Duke International Law Society provides an annual program for examining the application of international law to world problems. Through a series of lecture discussions in the fall called "A Short Course in International Law" and by featuring distinguished speakers in the field throughout the year, the society provides its members the opportunity to make contact with the men and ideas that are shaping the development of international law.

Other activities include participation in the annual Philip C. Jessup International Law Moot Court competition, attendance at conferences sponsored by the Association of Student International Law Societies, and sponsorship of a biennial conference on a selected topic of international significance. Membership is open to all law students with dues of \$5 per annum.

Women Law Students. Women Law Students serves as a central organization for united action in meeting the problems which women encounter in the legal profession and endeavors to promote cooperation and friendship among women law students. The organization sponsors several projects including conferences, work with women in the penal system, and lobbying for legislation favorable to women in North Carolina. The organization also works with women's groups in other law schools to improve the position of women in the legal profession at the national level.

The Crockett Society. Black law students have organized the Crockett Society to address the unique problems faced by Black people within and with-



out the Law School. The local aim of the group is to coalesce and amplify the goals of its members and provide a responsive student organization to aid the individual Black law student in his career at Duke University.

American Bar Association's Law Student Division. Duke Law School is one of over one hundred participating law schools in the American Bar Association's Law Student Division. Formed only six years ago, the Division is the only national group representing law students' views within the American Bar Association.

A member of the Fourth Circuit, along with the nine other schools in Virginia, West Virginia, and North and South Carolina, Duke has played a strong leadership role in the Circuit as well as on the national level of the Division.

Locally, the Law Student Division has begun promotion of new clinical legal education programs. among which is its "Night Rider" project wherein students accompany policemen on their appointed patrols. Other areas of active concern have been the Third Year Practice Rule in North Carolina and reform in penal institutions. In addition, there is communication between law schools on the circuit and national levels, benefiting each through the experience of others.

Night Rider Program. In an effort to give law students a better understanding of the realities of the criminal justice system, the Night Rider Program was established to involve students with police work. The program centers around the placement of students in Durham police cars on a routine night patrol, where they accompany the officer on a regular shift. Students are encouraged to participate in any follow-up investigations and to accompany the officer if he must go to court. In the past, students have become involved in every aspect of police work including murder investigation.

Legal Fraternities. The two legal fraternities are Hughes Inn of Phi Delta Phi and Wiley Rutledge Chapter of Phi Alpha Delta. These organizations sponsor luncheons, meetings featuring topics of professional interest, and several other social activities.

National Lawyers Guild. The Guild is a national association of lawyers, law students, legal workers, and jailhouse lawyers which addresses itself to the need for change in our power structure and governing process. The Duke chapter seeks to provide an alternative to the academic approach to law by sponsoring opportunities for students to place their skills in the service of people needing representation for the effective assertion of their legal rights. Examples of 1974 projects include assisting the Public Interest Research Group's intervention in a utility rate hearing and recycling the Law Library's discarded materials into a jailhouse library.

Top Left: William Kunstler, noted defense attorney.

Bottom Left: Louis Nizer, author and attorney.

Top Right: Clarence Kelley, Director of the FBI.

Bottom Right: General George S. Brown, chairman of the Joint Chiefs-of-Staff, made national headlines with his remarks before the Duke Law Forum.









Devil's Advocate. The Devil's Advocate is the weekly newspaper of the students of the Law School. The aim of the Advocate is to combine a variety of articles and editorials concerning all aspects of law school life with satirical and humorous articles, anecdotes, caricatures, and cartoons to provide a lighthearted yet thought-provoking break in the weekly routine. The newspaper, which is unique among law school papers, has consistently proved to be the most popular voluntary activity at the Law School. The Devil's Advocate staff consists of an editor-in-chief, assistant editors, reporters, and contributors. All students, faculty, and administrators are invited to participate.

Duke Law Forum. The Duke Law Forum furthers debate on national and legal issues at the Law School. Each year it has an active speaker schedule. This past year guests who appeared before the law forum included General George S.









Top Left: William Frates, defense counsel for John Ehrlichman.

Bottom Left: Donald Alexander, Commissioner of the IRS.

Top Right: Chesterfield Smith, immediate past-president of the ABA.

Bottom Right: Caspar Weinberger, Secretary of Health, Education and Welfare.

Brown, chairman of the Joint Chiefs-of-Staff; Clarence Kelley, director of the FBI; Donald Alexander, commissioner of the Internal Revenue Service; William Kunstler, attorney for the Chicago Seven; Louis Nizer, noted author and attorney; John Barnum. Under Secretary of Transportation; Philip Berrigan, radical priest; Lewis Engman, chairman of the Federal Trade Commission; William Frates, Watergate defense counsel for John Ehrlichman; Joseph Flythe, attorney for Catfish Hunter; Chesterfield Smith, immediate past president of the American Bar Association; Caspar Weinberger, Secretary of Health, Education and Welfare; Henry Rothblatt, counsel for the Watergate burglars; Dr. Fred Ikle, director of the U. S. Arms Control and Disarmament Agency; Paul Hoffman, author of Lions in the Street; Professor Charles Whitebread, authority on marijuana laws; Terry Sanford, president of Duke University; and Harry Golden, columnist and author.

Employment Opportunities

The study of law is demanding. It is designed to occupy the full time of the student and calls for his best. It is unwise for a student to dilute his efforts by

outside work, especially during the critical first year of study.

For those who find some outside earnings necessary to meet the expense of studying law at Duke, arrangements have been made to provide some part-time employment in the Law School. A number of positions in the Law Library are filled by law students. Students are often employed in their second and third years as research assistants for faculty members. The University maintains a general Placement Office to aid in finding employment and several law students serve as undergraduate residence advisers, if they have been at Duke one year or have previously held such positions.

The opportunities for employment in the University and surrounding community are as good for spouses of law students who are teachers, computer programmers, secretaries, or nurses as in other areas of the country. Other types of desirable positions are also available. The Assistant Dean's Office maintains a list of superintendents of schools in nearby districts which is available upon request. The University Personnel Office and the Medical Center Personnel Office assist interested persons in locating suitable employment on campus.

Book Exchange

Before the beginning of each semester, used texts may be purchased for considerably less than new texts. The Duke Bar Association administers the sale of used law books in the Law School basement.

Bookstores

Duke Law School students may purchase law school texts at the University Bookstore in the Union Building on campus or at The Book Exchange located in downtown Durham at 107 Chapel Hill Street.

Other On-Campus Facilities

Additional facilities on campus available to students include the Duke Station Post Office, a sundries store, a barbershop, a bank, and a men's store, all located in the basement of the Union Building.

Entertainment and Recreation

Within a short distance of the campus are facilities for golf, horseback riding, and woodland hiking. Students of the Law School are entitled to use the University gymnasiums, tennis courts, swimming pools, golf course, and similar facilities. North Carolina's mild climate makes golf, tennis, and sailing possible much of the school year. Kerr Lake, only an hour north of Durham, is ideal for Sunfish sailing. Other opportunities for physical activity are available in the Intramural Program, as well as through such activity groups as the outing, sailing, and cycling clubs. The North Carolina ski slopes are about three and a half hours to the west, the Outer Banks the same distance to the east.

University athletic contests are held on the University grounds at various times during the academic year. Duke is a member of the Atlantic Coast Conference. Concerts, recitals, lectures, and plays are presented frequently on campus.

Prizes and Awards

Several academic prizes and awards have been established by the Law School or are sponsored by individuals or organizations to recognize general academic excellence or high achievement in specific areas. The following list, though not complete, will indicate some of the academic prizes and awards available each year to law students who distinguish themselves.

American Jurisprudence Prize Awards. American Jurisprudence Book Awards are made to the student in each course who obtains the highest scholastic grade in that course. These book awards are sponsored yearly by the Lawyers Cooperative Publishing Company.

Corpus Juris Secundum Award. This award, sponsored by the American Law Book Company, is made to the student in each class who has made the most significant contribution to overall legal scholarship.

Hornbook Series Award. This award, sponsored by the West Publishing Company, is made to the student in each class who has obtained the highest scholastic average in his class for the year.

Nathan Burkan Copyright Award. Each year the Nathan Burkan Memorial Competition offers an award of \$250 to the student who writes the best paper on Copyright Law.

Prentice-Hall Tax Prize. An award, sponsored by Prentice-Hall, Inc., is made to the graduating senior who has made the most outstanding record in the courses in federal taxation.

Student Advocacy Award. This award, sponsored by the International Academy of Trial Lawyers, is made to the graduating senior selected by the faculty who has demonstrated the most outstanding ability in courtroom advocacy.

United States Law Week Award. This award is made to a graduating senior selected by the faculty as the student who has made the greatest academic progress during his final year of study. It is sponsored by the Bureau of National Affairs, Inc. and consists of a year's complimentary subscription to United States Law Week.

Will Drafting Contest. In order to encourage good draftsmanship of wills, the North Carolina National Bank each year conducts a will drafting contest which is open to all law students in the State of North Carolina who are not already members of the Bar. Prizes of \$50 each are awarded for the two best entries from each law school. The best of these six entries receives an additional award of \$150. The second best entry receives an additional \$50 prize.

Willis Smith Award. This award is presented annually to the member of the graduating class who has achieved the highest academic average for his three years of law study. The award is sponsored by the family of United States Senator Willis Smith. a deceased alumnus, and consists of a set of legal volumes selected by the recipient of the award.



Appendix A

Former Schools of Duke Law Students

| Adelphi University | 1 | Kirkland College | 1 |
|---|----|---|---|
| Agnes Scott College | 1 | Knoxville College | 1 |
| Albion College | 1 | Lehigh University | 3 |
| Albright College | 1 | London School of Economics | 1 |
| Allegheny College | 1 | Louisiana State University | 3 |
| The American University | 2 | Macalester College | 1 |
| Austin College | 1 | Massachusetts Institute of Technology | 3 |
| Baylor University | 2 | Memphis State University | 1 |
| Birmingham Southern College | 1 | Mercer University | 2 |
| Bob Jones University | 1 | Miami University at Oxford, Ohio | 1 |
| Boston College | 2 | Miami University | 2 |
| Boston University | 4 | Michigan State University | 1 |
| Brandeis University | 3 | Middlebury College | 1 |
| Brigham Young University | 6 | Morehouse College | 1 |
| Brown University | 2 | Mt. Holyoke College | 1 |
| Bryn Mawr College | 1 | Muhlenberg College | 1 |
| Bucknell University | 4 | New Mexico State University | 1 |
| California State College at Los Angeles | 1 | New York College at Oneonta | 1 |
| Calvin College | 1 | New York University | 2 |
| Campbell College | 1 | North Carolina State University | 5 |
| Capitol University | 1 | Northwestern University | 4 |
| Carleton University | 1 | Occidental College | 4 |
| Carroll College | 1 | Ohio State University | 6 |
| Catholic University | 1 | Ohio Wesleyan University | 2 |
| Claflin College | 1 | Otterbein College | 1 |
| Claremont Men's College | 2 | Ouachita Baptist University | 1 |
| Clarion College | 1 | Pennsylvania State University | 3 |
| Clarke College | 1 | Pomona College | 2 |
| Colgate University | 1 | Princeton University | 6 |
| College of Charleston | 1 | Providence College | 1 |
| College of the Holy Cross | 3 | Purdue University | 1 |
| College of William & Mary | 3 | Reed College | 1 |
| College of Wooster | 1 | Rice University | 1 |
| Columbia University | 3 | Rutgers State University | 2 |
| Cooper Union | 1 | Samford University | 1 |
| Concordia College | 1 | Scripps College | 1 |
| Cornell College | 1 | Seattle University | 1 |
| Cornell University | 5 | Seton Hall University | 1 |
| Dartmouth College | 9 | Smith College | 1 |
| David Lipscomb College | 1 | Southern Illinois University | 2 |
| Davidson College | 7 | Southern Methodist University | 4 |
| Dickinson College | 3 | Spelman College | 1 |
| Drake University | 1 | St. Joseph's College | 2 |
| Drexel University | 1 | St. Olaf College | 3 |
| Duke University | 37 | St. Peter's College, New Jersey | 1 |
| Duquesne University | 1 | Stanford University | 8 |
| East Carolina University | 1 | State University of New York at | |
| Eastern Tennessee State University | 1 | Binghamton | 6 |
| Emory University | 4 | State University of New York at Buffalo | 4 |
| Florida State University | 3 | Syracuse University | 3 |
| Georgetown University | 1 | Temple University | 1 |
| Gettysburg College | 1 | Texas Christian University | 1 |
| Hampton Institute | 1 | Trinity College, Connecticut | 2 |
| Harpur College | 1 | Trinity College, Washington, D.C. | 1 |
| Harvard University | 12 | Trinity University | 1 |
| Howard University | 2 | Tulane University | 1 |
| Illinois State University | 1 | Union College | 5 |
| Indiana University | 8 | United States Air Force Academy | 2 |
| Iowa State University | 1 | United States Military Academy | 1 |
| Johns Hopkins University | 3 | University of California at Los Angeles | 3 |
| Kansas State University | 1 | University of California at San Diego | 1 |

| University of California at Santa Barbara | 1 | University of South Carolina | 2 |
|---|----|-----------------------------------|----|
| University of Chicago | 1 | University of Southern California | 5 |
| University of Cincinnati | 1 | University of Tennessee | 3 |
| University of Colorado | 1 | University of Utah | 2 |
| University of Dallas | 1 | University of Virginia | 2 |
| University of Delaware | 1 | University of Washington | 1 |
| University of Florida | 7 | University of West Florida | 1 |
| University of Georgia | 3 | University of Wisconsin | 2 |
| University of Hawaii | 1 | Vanderbilt University | 2 |
| University of Illinois | 5 | Vassar College | 2 |
| University of Kansas | 1 | Villanova University | 1 |
| University of Kentucky | 5 | Wabash College | 7 |
| University of Louisville | 1 | Wake Forest University | 3 |
| University of Maine | 1 | Washburn University | 1 |
| University of Maryland | 2 | Washington & Jefferson College | 1 |
| University of Massachusetts | 1 | Washington & Lee University | 2 |
| University of Miami | 3 | Washington State University | 1 |
| University of Michigan | 7 | Washington University at Missouri | 1 |
| University of Minnesota | 1 | Wellesley College | 4 |
| University of Mississippi | 1 | Wesleyan University | 1 |
| University of Missouri | 6 | West Virginia University | 4 |
| University of Nebraska | 4 | Western Kentucky University | 1 |
| University of New Hampshire | 1 | Western Maryland College | 1 |
| University of North Carolina at Chapel Hill | 20 | Westminster College | 1 |
| University of North Carolina at Greensboro | 1 | Wheaton College | 4 |
| University of North Carolina at Wilmington | 1 | Whitman College | 2 |
| University of Notre Dame | 7 | Williamette University | 2 |
| University of Oklahoma | 2 | Williams College | 1 |
| University of Oregon | 1 | Wittenberg University | 3 |
| University of Pennsylvania | 11 | Wofford College | 3 |
| University of Rochester | 6 | Yale University | 12 |
| University of the South | 1 | | |
| | | | |

Appendix B

Home States of Duke Law Students

| Alabama | 8 | New Jersey | 24 |
|----------------------|----|----------------|----|
| Alaska | 1 | New Mexico | 2 |
| Arizona | 4 | New York | 50 |
| Arkansas | 1 | North Carolina | 54 |
| California | 26 | North Dakota | 1 |
| Connecticut | 6 | Ohio | 28 |
| Delaware | 1 | Oklahoma | 5 |
| District of Columbia | 4 | Oregon | 3 |
| Florida | 27 | Pennsylvania | 27 |
| Georgia | 16 | Rhode Island | 1 |
| Illinois | 17 | South Carolina | 17 |
| Indiana | 14 | South Dakota | 2 |
| Kansas | 4 | Tennessee | 3 |
| Kentucky | 9 | Texas | 7 |
| Louisiana | 4 | Utah | 5 |
| Maine | 2 | Vermont | 1 |
| Maryland | 15 | Virginia | 8 |
| Massachusetts | 4 | Washington | 5 |
| Michigan | 9 | West Virginia | 5 |
| Minnesota | 7 | Wisconsin | 8 |
| Mississippi | 2 | Australia | 1 |
| Missouri | 10 | Canada | 2 |
| Nebraska | 2 | Virgin Íslands | 1 |
| New Hampshire | 1 | England | 1 |

Appendix C

First-Year Class (Class of 1977)

Acker, David Henry, B.S. (Duquesne University), New Castle, Pennsylvania Andrews, Stanley David, B.S. (Louisiana State University), Baton Rouge, Louisiana Arkin, Russell Evan, B.A. (Brandeis University), Dobbs Ferry, New York Arthur, Kathryn Ruth, B.A. (University of Southern California), Corona, California Baer, Charles Arthur, B.A. (College of the Holy Cross). Burlington, Connecticut Barab, Ronald Evan, B.A. (Duke University), Aiken. South Carolina Beverage, James Wilson, B.A. (West Virginia University). Valley Bend, West Virginia Bjorlo, Philip Andrew, B.A. (Duke University). Titusville, Florida Blau, Richard Dennis, B.A. (State University of New York at Binghamton), Jamaica, New York Bloch, Peter Montefiore, B.A. (University of Rochester), Great Neck, New York Bookman, Mark, B.A. (Boston University), Levittown, Pennsylvania Bothel, Peter Brian, B.A. (Wheaton College), Moraga, California Brisbon, Brenda Carol, B.A. (Vassar College), Poughkeepsie, New York Camp, Ashby Lee, B.A. (University of Florida), Pleasantville, New Jersey Campbell, William Craig. B.A. (Vanderbilt University), Raleigh, North Carolina Carbone, Richard Allen, B.A. (Rutgers State University), Pompton Plains, New Jersey Carbonell, Joaquin Ramon, B.A. (Boston College), LaCrosse, Wisconsin Chatham, Lucy Hanes, B.A. (Pomona College), Elkin, North Carolina Conley, John Martin, B.A. (Harvard University), M.A. (Duke University), Durham, North Carolina Cook, Jeffrey Mason, B.A. (Gettysburg College). McMurray, Pennsylvania Coploff, Larry Edward, B.S. (University of Pennsylvania), Woolrich, Pennsylvania Coster, Mary Ellen Therese, B.A. (Catholic University), Flushing, New York Courington, Lea Frances, B.A. (Southern Methodist University), Dallas, Texas Cozart, Robert Toombs III, B.A. (University of North Carolina at Chapel Hill), Tampa. Florida Curry, Timothy Joseph, B.A. (State University of New York at Binghamton), Lynnbrook, New York Cyr, Karen Dee, B.S. (Iowa State University), Chapel Hill, North Carolina Davenport, George William, B.A. (Birmingham Southern College), M.A. (Duke University), Birmingham, Alabama

Davidson, Lisa, B.A. (University of Michigan), Meridian, Mississippi DeArms, Luis Arturo, B.S. (University of Pennsylvania), Key Biscayne, Florida Dickinson, Richard Charles, B.A. (University of Notre Dame). Chicago, Illinois Dobishinski, William Michael, B.A. (Union College), Buffalo. New York Eaglin, Paul Bradford, B.A. (Johns Hopkins University), Fayetteville, North Carolina Eckerle, Michael Louis, B.A. (Wabash College), Crawfordsville, Indiana Eisenberg, David Mark, B.A. (Duke University), Pittsburgh, Pennsylvania Ellis, Michael Alan, B.A., M.A. (University of Pennsylvania). Chicago, Illinois

Elwood, Robert Bailey, Jr., B.A. (Duke University), Bellair Beach, Florida Ensor, Eric Frank, B.A. (Duke University), Decatur, Georgia—M.B.A.-J.D. Joint Degree Program

Epstein, Charles Ira, B.A. (State University of New York at Buffalo), Flushing, New York Erwin, Frank Woodson, B.A. (Davidson College), Laurinburg, North Carolina

Etheridge, Donald McGee, B.A. (Duke University), Raleigh, North Carolina Feldstein, Samuel Peter, B.A. (Union College), Gloversville, New York

Fleming, Robert O'Neal, B.S. (North Carolina State University), Raleigh, North Carolina

Freilich, Harold Irvin, B.A. (Muhlenberg College), Philadelphia, Pennsylvania

Gallagher, Michael John, B.A. (University of Colorado), Elyria, Ohio

Gayle, Scott Conrad, B.A. (University of North Carolina at Chapel Hill), High Point, North Carolina

George, Paul Michael, B.A. (University of Illinois), Sidney, Illinois

Gepford, Marsha Kay, B.A. (College of William & Mary), Zanesville, Ohio

Gibbons, Kathryn Ann, B.A. (Wittenberg University), North Canton, Ohio

Gilford, Steven Ross, B.A. (Dartmouth College), Evanston, Illinois—A.M. in Public Policy Sciences-J.D. Joint Degree Program

Gillespie, Herbert William, B.A. (Brigham Young University), Suisum. California

Goode, Rosalia Ellen, B.A. (Spelman College), Teaneck, New Jersey

Goodmon, Raymond Hayes III, B.A. (University of North Carolina at Chapel Hill), Raleigh, North Carolina

Gordon, Maxine Patricia, B.A. (University of Louisville), M.A. (Middlebury College), Louisville, Kentucky

Gorey, Brent Steven, B.A. (University of New Hampshire), Chatham, New Jersey Graham, Croley Wayne, Jr., B.A. (David Lipscomb College), Huntsville, Alabama Gregory, Joan Harriet, B.A. (Wellesley College), Carmel, California

Hamilton, Marshall D., B.A. (Brigham Young University), Cincinnati, Ohio

Harris, Judith Lynn, B.A. (Boston University), Ridgewood, New Jersey Hart, William Paul, B.A. (University of Notre Dame), Rochester, New York Hartenstine, John Michael, B.A. (Harvard University), Sarasota, Florida Heath, Edward Deveaux, Jr., B.A. (Mercer University), Birmingham, Alabama Hinson, Edward T., Jr., B.A. (Wofford College), Rock Hill, South Carolina Hix, Richard Parker, B.A. (University of Oklahoma), Oklahoma City, Oklahoma Hogan, Alma Tina, B.A. (Mt. Holyoke College), Valhalla, New York Hogwood, Stephen Franklin, B.A. (University of the South), Stone Mountain, Georgia Holland, Robert F., B.S. (United States Military Academy), Duncan, Oklahoma Hone, Jay Roderick, B.A. (Otterbein College), Lima, Ohio Houghton, Deborah Jane, B.B.A. (College of William & Mary), Sarasota, Florida Hunter, Mary Susan, B.A. (Southern Methodist University), Dallas, Texas Irving, Thomas Lee, B.A. (University of Utah), Bountiful, Utah Isom, David Keith, B.A. (Brigham Young University). Salt Lake City. Utah Jacob, Timothy Joseph, B.A. (University of Notre Damel, St. Mary's, Pennsylvania Johnstone, Frank Andrew, B.S. (Massachusetts Institute of Technology), Berea, Kentucky Jones, Lauren Evans, B.A. (University of Michigan), Ann Arbor, Michigan Jones, Michael David, B.S. (Duke University), Cary, North Carolina Kahn, Michael Harold, B.A. (University of Florida), M.A. (Emory University), Indian Harbor Beach, Florida Kallstrom, Donald Ward, B.A. (University of California at Santa Barbara), San Francisco, California Kirk, Steven Craig, B.A. (Duke University), La Vale, Maryland Kroll, Linda Carolyn, B.A. (Washburn University), Topeka, Kansas Kuhl, Carolyn Barbara, B.A. (Princeton University), Ferguson, Missouri Lasher, Joanne, B.A. (University of Delaware), Fanwood, New Jersey Lawrason, Pamela Knowles, B.A. (Smith College), Hillsborough, North Carolina Leef, George Charles, B.A. (Carroll College), Elm Grove, Wisconsin Levitt, Dana Nisen, B.A. (University of Massachusetts), Albuquerque, New Mexico LiCalsi, Paul Vincent, B.A. (Yale University), Tampa, Florida Lisankie, Paul Francis, B.A. (Rutgers State University), Morris Plains, New Jersey McLaughlin, Harriet Alease, B.A. (Duke University), Greensboro, North Carolina McNatt. Jud Everett, B.A. (University of Virginia), Atlanta, Georgia Mariger, Craig Robert, B.A. (University of Washington), Edmonds, Washington Meaders, William Anderson, Jr., B.S. (Brigham Young University), Provo. Utah Meeks, Watson Edward, B.A. (Mercer University), Albany, Georgia Meredith, Timothy Elmer, B.A. (Western Maryland College), Federalsburg, Maryland Merrill, Heloise Catherine, B.A. (Duke University), Naples, Florida Mills, Janice Lorene, B.A. (University of North Carolina at Chapel Hill), Reidsville, North Carolina Miraldi, James Lawrence, B.A. (College of Wooster), Wooster. Ohio Mixter, Christian John, B.A. (Ohio State University), Columbus, Ohio Morgan, Jane Ann, B.A. (Stanford University), San Marino, California Morrison, David Eugene. B.A. (University of Nebraska), Bartlesville, Oklahoma Moskowitz, Robert Gary, B.A. (State University of New York at Buffalo), Brooklyn, New York Murphy. Angela Regina, B.A. (University of Illinois), Mt. Prospect, Illinois Nelson, Steven Arthur, B.A. (Miami University at Oxford, Ohio), Chatham, New Jersey Netzley, Carol Anne, B.A. (Capitol University), Laura, Ohio Newman, Todd Henry, B.A. (University of Pennsylvania), St. Croix, Virgin Islands Nussbacher, Kenneth Jay, B.S. (Cooper Union), Flushing, New York Olive, Susan Freya, B.A. (Brown University), Durham, North Carolina Orenstein, Adele Gail, B.A. (Cornell University), West Orange, New Jersey Page. John David, B.A. (Purdue University). Clarkesville. Indiana Parker, James Wilson, B.A. (Yale University). Atlanta, Georgia Pauley, William Henry III, B.A. (Duke University), Glen Cove. New York Peck, Andrew Jay, B.A. (Cornell University), Bronx, New York Pettit, Robert Lester, B.A. (University of Missouri), Ava. Missouri Pineiro, Roberto Martin, B.A. (University of Miami), Miami, Florida Pishko, David Christopher, B.A. (Duke University), Marietta, Ohio Poliner, Gary Alan, B.A. (Dickinson College), Eaton, Pennsylvania Pontone, Kathleen Andrea, B.A. (Vassar College), Morganville, New Jersey Poole, Marilynn Denise, B.A. (Austin College), Austin, Texas Price. William Alexander, B.S. (University of Illinois), Champaign, Illinois Purdy, George Alfred, B.A. (University of Missouri), Columbia, Missouri Quast, David Christopher, B.A. (University of Wisconsin), Milwaukee, Wisconsin Rappoport, Alan Jeffrie, B.A. (Claremont Men's College), Northridge, California Reardon, Michael John, B.A. (Wabash College), East Chicago, Indiana

Reichgott, Ember Darlene, B.A. (St. Olaf College), New Hope, Minnesota

Revelle, Charles Leslie III. B.A. (University of North Carolina at Chapel Hill), Murfreesboro, North Carolina

Rhudy, Stephen Clay, B.A. (State University of New York at Binghamton), Scotia, New York

Riddle, Paul Newton, B.A. (Dartmouth College), Bennington, Vermont

Rimsky, Neil Tobias, B.A. (University of Rochester), Eastchester, New York

Rosenthal, Daniel Goodman, B.A. (Wittenberg University), Springfield, Ohio

Roth, Edward Joseph III, B.S. (University of Pennsylvania), Hingham, Massachusetts

Scott, Richard Waldo, B.A. (Duke University), Houston, Texas

Scovel, Calvin Loren III, B.A. (University of North Carolina at Chapel Hill), Hampstead, New Hampshire

Scowcroft, Jerome Chilwell, B.A. (Stanford University), M.A. (University of California at San Diego), Longview, Washington—A.M. in Public Policy Sciences-J.D. Joint Degree Program

Seep, Ralph Vincent, B.A. (University of Notre Dame), Luling. Louisiana

Sharp, Starkey, B.A. (Southern Methodist University), Nags Head, North Carolina

Shrago, Alvin Harold, B.S. (Duke University), Rocky Mount, North Carolina

Shuler, James Moran, B.A. (Emory University), London, England

Siegel, Michael Steven, B.A. (Johns Hopkins University), Rockville, Maryland

Simmons, Geoffrey Henderson, B.A. (Howard University), Goldsboro, North Carolina

Skiba, Jonathan William, B.S. (Syracuse University), Bayside, New York

Sorensen, Paul Thomas, B.A. (University of Michigan), Muskegon, Michigan

Spring, Robert Emmett, B.A. (Williams College), Shaker Heights, Ohio

Starnes, James Edward, B.A. (Ouachita Baptist University), Sikeston, Missouri

Steele, Rachel Love, B.A. (Duke University), Nashville, Tennessee

Steinberg, Robert Alan, B.A. (University of Michigan), Hewlett, New York

Steinbrecher, Alan King, B.A. (University of North Carolina at Chapel Hill), Solana Beach, California

Stribling, Jay Vencill, B.A. (Southern Methodist University), San Antonio, Texas

Tenney, Amy Susan, B.A. (Trinity College, Connecticut), White Plains, New York

Torbert, Vance Wiley III, B.A. (Princeton University), M.A. (University of West Florida), Bernardsville, New Jersey

Trahan, Jeanne Celeste, B.S.F.S. (Georgetown University), Silver Spring, Maryland

Triplett, Susan Jo, B.A., M.A. (Southern Illinois University), Kankakee, Illinois

Wald, Michael H., B.S. (University of Pennsylvania), Rockville Centre, New York

Walker, John Lockwood, B.A. (Duke University), Decatur, Georgia

Weber, Henry F., B.A. (University of Kentucky), Louisville, Kentucky

Weininger, William Philip, B.A. (State University of New York at Binghamton), Flushing, New York

West, Kim William, B.S. (West Virginia University), St. Albans, West Virginia

White, Mary Jane, B.A. (Reed College), Charlotte, North Carolina

Whitney, William Earl, B.A. (Bucknell University), Abington, Pennsylvania

Wieczorek, Dennis Edmond, B.A. (Washington University at Missouri), Reading, Pennsylvania

Work, Carl Thomas, B.A. (Dickinson College), Hamburg, Pennsylvania

Yazgi, Abdo, B.A. (Dartmouth College), Jacksonville, Florida

Zamer, John Edward, B.A. (State University of New York at Buffalo), Tonawanda, New York

Second-Year Class (Class of 1976)

Acker, James Robert, B.A. (Indiana University), Franklin, Michigan

Adcock, David Brooks, B.A. (University of North Carolina at Chapel Hill), Durham, North Carolina

Allman, Celia Lee, B.A. (Duke University), Winston-Salem, North Carolina

Allston, Allard Albert, Jr., B.A. (Yale University), Darlington, South Carolina Alvarez, Margaret Toms, B.A. (University of Florida), Miami Lakes, FLorida

Ament, Mark Steven, B.A. (Northwestern University), Louisville, Kentucky

Anthony, Harris Robert, B.A. (Colgate University), Lauderhill, Florida

Arnold, Herman Ross III, B.A. (Duke University), Atlanta, Georgia

Arnwine, Barbara Ruth, B.A. (Scripps College), Compton, California

Bailey, Todd Hunter, B.A. (Miami University), New South Wales, Australia

Barnes, Linna May, B.A. (University of Georgia), Athens, Georgia

Beeler, John Cole, B.A. (Dartmouth College), Indianapolis, Indiana

Beggs, Robert John, B.A. (Pennsylvania State University), New Kensington, Pennsylvania

Bland, Paul Cornelious, B.A. (Howard University), M.B.A. (Harvard University), Petersburg, Virginia

Blinder, Henry David, B.A. (University of Rochester), Huron, Ohio

Brockway, James Russell, B.A. (Dartmouth College), Phoenix, Maryland

Bruce, David Alan, B.A. (Baylor University), Tempe, Arizona

Buck, Peter Coleman, B.A. (Duke University), Durham, North Carolina

Busch, John Arthur, B.A. (Wabash College), Indianapolis, Indiana

Butner, Fred Raymond, A.B. (Duke University), Winston-Salem, North Carolina

Caffrey, Denise, B.A. (University of North Carolina at Greensboro), Huntsville, Alabama

Callender, John Francis, B.A. (Davidson College), M.A. (University of North Carolina at Chapel Hill), Jacksonville, Florida

Carter, Betsy Ida, B.A. (Wittenberg University), Jefferson, Ohio

Casey, Michael Ralph, B.A. (Southern Illinois University), M.A. (Stanford University), Rock Hill, South Carolina

Claybrook, Frederick William, B.A. (Wheaton College), Chagrin Falls, Ohio

Cochran, Linda Jean, B.S. (University of Oregon), North Bend, Oregon

Cockle, John Robert, B.A. (University of Nebraska), Milwaukee, Wisconsin—M.B.A.-J.D. Joint Degree Program

Coe, Kenneth Sears, Jr., B.A. (University of North Carolina at Chapel Hill), Charlotte, North Carolina Cohen, Jay Lindsey, B.A. (Texas Christian University), Colonial Springs, New York

Connors, John Joseph, B.A. (Villanova University), Aldan, Pennsylvania

Cordiano, Dean M., B.A. (State University of New York at Binghamton), Brooklyn, New York Crumwell, Wayne Everett, B.A. (Davidson College), M.B.A. (University of Wisconsin), Portsmouth, Virginia

Culbreth, Michael Gordon, B.A. (Davidson College), Clemmons, North Carolina

Davids, James Alan, B.A. (Calvin College), Palos Heights, Illinois

Davidson, Jeffrey John, B.A. (Duke University), Haddonfield, New Jersey—A.M. in Public Policy Sciences-J.D. Joint Degree Program

Deaton, Winford Robinson, Jr., B.S. (University of Tennessee), Valdese. North Carolina

Diaz, Benito Humberto, B.A. (St. Peter's College, New Jersey), West New York, New Jersey Drucker, James Douglas, A.B. (State University of New York at Buffalo), East Meadow, New York

Dugan, Daniel James, B.A. (St. Joseph's College). Maple Shade, New Jersey Dye, Dana Lloyd, B.A. (Wake Forest University), Honaker, Virginia

Edwards, Lonzy F., B.A. (Knoxville College), M. Div. (Yale), Sparta, Georgia

Elder, Michael Allen, B.A. (North Carolina State University), Durham, North Carolina—M.B.A.-J.D.

Joint Degree Program Embree, Glen Mitchell, B.A. (University of Kentucky), Glendale, Kentucky

Etcheverry, Raymond John, B.S. (University of Utah), Ogden, Utah

Evans, Joseph William, B.A. (University of Kentucky), Lexington, Kentucky

Everett, Ralph Bernard, B.A. (Morehouse College), Orangeburg, South Carolina Feagles, Prentiss Eric, B.A. (Cornell University), Great Barrington, Massachusetts

Finkelstein, James Norman, B.A. (University of Pennsylvania), Johnstown, Pennsylvania

Fischer, Mark Stephen, B.A. (Duke University), Pelham Manor, New York

Flavin, John Richard, B.S. (United States Air Force Academy), Webster Groves, Missouri

Fleischer, James Sidney, B.A. (Dartmouth College), Youngstown, Ohio

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Gearreald, Karen Louise, B.A. (Agnes Scott College), Ph.D. (Harvard University), Norfolk, Virginia

Gepford, Daniel William, B.A. (College of William & Mary), Fanwood, New Jersey

German, Robert Andrew. B.A. (East Carolina University), Silver Spring, Maryland Gesch, Gary Richard, B.A. (University of Southern California), La Habra, California

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Griffeth, Jack Dalrymple, B.A. (Wofford College), Greenville, South Carolina

Hackbarth, Glenn Martin, B.A. (Pennsylvania State University), Pittsburgh, Pennsylvania

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Hansen, Eric Peter, B.A. (St. Olaf College), Stillwater, Minnesota

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Hanson, Thomas Arthur, B.A. (Ohio State University), Alliance. Ohio

Heath, Thomas Hunter, B.A. (Emory University), Birmingham, Alabama—A.M. in Public Policy Sciences-J.D. Joint Degree Program

Huffman, Byron Lane, B.A. (University of North Carolina at Chapel Hill), Asheville, North Carolina Hughes, Leo Keith, B.A. (Louisiana State University), Baton Rouge. Louisiana

Huitt, Jimmie Lee, Jr., B.A. (Ohio State University), Los Angeles, California—M.B.A.-J.D. Joint Degree Program

Hunt, Kenneth Charles, B.S. (University of Michigan), Kalamazoo, Michigan

Jervay, Marion White, B.A. (University of North Carolina at Wilmington), Raleigh, North Carolina Johnson, Bruce Edward, B.A. (Harvard University), Columbus, Ohio—A.M. in Public Policy Sciences-J.D. Joint Degree Program

Johnson, William Bruce, B.A. (Duke University), Annandale, Virginia—M.B.A.-J.D. Joint Degree Program Kahn, Peter Jonathan, B.A. (Yale University), West Hartford, Connecticut

Kasper, Robert Joseph, B.A. (Stanford University), Menlo Park, California—M.B.A.-J.D. Joint Degree

Program

Kelsey, Reeve Withrow, B.A. (Washington & Lee University), Toledo, Ohio Kieffer, Stephen Paul, B.A.B.S. (The American University), Enid, Oklahoma

Kizziar, James Herndon, Jr., B.A. (Ohio Wesleyan University), Fairborn, Ohio

Klein, Michael Arnold, B.A. (University of Rochester), Syracuse, New York Kolkin, Mitchell, B.A. (University of Pennsylvania), Brinklow, Maryland

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Mask, Johnnie William, Jr., B.A. (Adelphi University), Corona, New York

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Murphy, Steven Dennis, B.A. (Wabash College), Hartford City, Indiana

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Schwartz, Aron Morris, B.A. (University of Rochester), Clifton, New Jersey

Schwartz, Eugene Michael, B.A. (State University of New York at Binghamton), Budd Lake, New Jersey

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Silverman, Sheri Helene, B.A. (Kirkland College), Great Neck, New York

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Tally, Robert Taylor, B.A. (Duke University), Fayetteville, North Carolina
Tanford, James Alexander, B.A. (Princeton University), Durham, North Carolina
Taylor, George Wellford, Jr., B.A. (University of North Carolina at Chapel Hill), Durham, North
Carolina

Tepker, Harry Frederick, Jr., B.A. (Claremont Mens College), Los Angeles, California
 Thompson, Gary DuBois, B.A. (Washington & Jefferson College), Pitman, New Jersey
 Thompson, Stephen Russell, B.A. (University of North Carolina at Chapel Hill), M.A. (School of International Affairs, Carleton University), Albermarle, North Carolina
 Tousey, Clay Burford, Jr., B.S. (University of Florida), Jacksonville, Florida
 Tucker, Samuel Fach, B.A. (Williamette University), Weston, Oregon

Tucker, Samuel Eaph. B.A. (Williamette University), Weston, Oregon VanHorn, Daniel Franklin, B.A. (Allegheny College), Bedford, Pennsylvania Vogel, Edward Walter, B.S. (University of Florida), Lakeland, Florida Weaver, Keith Wayne, B.A. (University of Mississippi), Mountain Creek, Alabama Weber, Robert Carl, B.A. (Yale University), Chardon, Ohio Weintraub, Richard N., B.A. (Brandeis University), Florence, South Carolina

Whittington, William Edward IV, B.A. (Wheaton College), Birmingham, Michigan Wiggins, Charles Kenneth, B.A. (Princeton University), M.B.A. (University of Haiwii

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Dana, Frank Johnstone, B.A. (Davidson College). Columbia. South Carolina Davis, Thomas Phillip, A.B. (University of Southern California), North Hollywood, California DeBaets, Timothy Joseph, B.A. (Columbia University), South Bend, Indiana Dennis, George, B.A. (Lehigh University), Williston Park, New York Doores, Larry Dean, B.A. (Stanford University), Greenwich, Connecticut Drewty, Eric Boleyn, A.B. (Princeton University), Newark, Delaware Duncan, Allyson Kay, B.S. (Hampton Institute), Durham, North Carolina Edwards, Sandra Schneider, A.B., M.S. (Indiana University), Greensboro, North Carolina Engle, Clement Parker, B.A. (Yale University), Bryn Mawr, Pennsylvania Fairchild, Roger Charles, B.S. (Columbia University), Manluis, New York Fering, Robert Best (University of Minnesota), Sleepy Eye, Minnesota Fink, Michael Fabian, B.A. (Tulane University), New Orleans, Louisiana Finkelstein, Julius Louis, B.S. (Columbia University), Palo Alto, California Fogle, James Lee, B.A. (Whitman College), Aberdeen, Washington Franklin, David Bruce, A.B. (Stanford University), El Cajon, California Fukushima, Paul Jay, B.A. (Pomona College), Los Angeles, California Gambill, Cromwell Cleveland, B.A. (Transylvania College), Lexington, Kentucky Gilbride, Maryssa Hannigan, A.B. (Trinity College, Washington, D.C.), New York, New York Goldman, Nathan Carliner, B.A. (University of South Carolina), Dillon, South Carolina Goumas, Stanley, A.B., M.A. (University of Chicago), San Francisco, California Graham. Oscar Mattison, Jr., B.S., M.C.R.P. (University of North Carolina at Chapel Hill), Laurinburg, North Carolina Hawkins, Allan Reese, B.A. (Concordia College), Jamestown, North Dakota Henry, Robert Jason, B.A. (Yale University), Vancouver, British Columbia, Canada Hildebrandt. Stephen Austin, A.B. (Harvard University), Elm Grove, Wisconsin Hoevet, Ronald Harold, B.A. (Williamette University), Portland, Oregon Hohnbaum, James Lloyd, B.A. (Indiana University), Hiawatha, Kansas Howell, John Aubrey, A.B. (Duke University), Alexandria, Virginia Hunsaker, Keith Allen, Jr., A.B. (University of California at Los Angeles), Los Angeles, California Hurder, Alex Jay, A.B. (Harvard University), Champaign, Illinois Jenkins, Eleanor Ruth, B.A. (New York University), Brooklyn, New York Johnson, William Henry, B.A. (Claflin College), Orangeburg, South Carolina Johnstone, Irvine Blakely III, B.A. (Lehigh University), Mountainside, New Jersey Joyce, Richard Alan, B.A. (University of Maine), South Portland, Maine Kable, William Sanderson, B.A. (Johns Hopkins University), M.A., Ph.D. (University of Virginia), Columbia, South Carolina Keller, John Kistler, A.B. (Indiana University), Indianapolis, Indiana Kerber, David Walter, B.S. (United States Air Force Academy), Waukesha, Wisconsin Kernodle, John Robert, Jr., B.A. (Duke University), Burlington, North Carolina Kievit, Robert Warren, B.S. (Lehigh University), Pensacola Beach, Florida Kinney, Harry Craig, B.S. (Yale University), Columbus, Indiana Klein, Howard Judah, B.S. (Massachusetts Institute of Technology), Poughkeepsie, New York Kohler, Charles Walter, B.S. (Ohio State University), Toledo, Ohio Koman, Alan James, B.A. (Cornell University), East Point, Georgia Layer, Wendy Jeanne, B.A. (Occidental College), Sun Valley, California Leary, Denise Brender, A.B. (Boston University), Washington, D. C. Leban, Michael Frank, B.A. (Harpur College), Rego Park, New York Lieberman, Marcia Joan, A.B. (Indiana University), Chicago, Illinois Lunsford, Douglas Lee, B.A. (New Mexico State University), Las Cruces, New Mexico Lybrand, James Austin IV, A.B. (University of North Carolina at Chapel Hill), Greensboro, North Carolina Lynch, Gary Grant, B.A. (Syracuse University), Syracuse, New York Maddox, Lola Pearl, B.S. (Illinois State University), Alton, Illinois Mann, Thomas Nelson, B.A. (University of Missouri), Kirkwood, Missouri Martin, Charles George Gordon, B.A. (Occidental College), Glendale, California Martin, William Earle, B.A. (Occidental College), Paradise Valley, Arizona Marusak, Alex Louis, B.A. (University of Dallas), Ph.D. (University of Tennessee), Ennis, Texas May, Kenneth Rodney, B.A., M.A. (University of Florida), North Palm Beach, Florida McCulloch, Elizabeth, Bachelor of General Studies (University of Michigan), Ann Arbor, Michigan McDonald, Hugh Ranald, A.B. (University of California at Los Angeles), Los Angeles, California McGuane, Thomas Fitzgerald, A.B. (Dartmouth College), Lowell, Massachusetts McLeod, John Bowman, B.A. (Wofford College), Orangeburg, South Carolina

Degree Program Metzner, Margot Andrea, B.A. (Northwestern University), Madison, Wisconsin

Mertzlufft, James William, B.A. (University of Notre Dame), Akron, Ohio-M.B.A.-J.D. Joint

Michael, Mark Anthony, B.S. (Providence College), Columbia, South Carolina Mihelich, Jean Marie, B.A. (Macalester College), Hibbing, Minnesota Miller, John Randolph, A.B. (Duke University), Alexandria, Virginia Miller, Thomas Paul, B.A. (New York University), Monticello, New York Mimms, Carney Wilson III, B.A. (Yale University), Bronxville, New York Moran, Glenn Richard, B.S. (Seton Hall University), Clark, New Jersey Morrison, Francis Henry, A.B. (College of the Holy Cross), Thompsonville, Connecticut Moyer, Linton Lauer, B.A. (Albright College), Wyomissing Hills, Pennsylvania Murrin, John Owen III, B.A. (University of California at Los Angeles), Long Beach, California Orlofsky, Marc Steven, A.B. (Brandeis University), Merrick, New York Philion, Norman Joseph III, A.B. (Indiana University), Palatine, Illinois Pickering, Jay Dee, B.A. (California State College at Los Angeles), Timmonsville, South Carolina Pilo, Barbara, B.A. (University of Rochester), Stewart Manor, New York Pipkin, Ashmead Pringle, B.A. (University of North Carolina at Chapel Hill), M.B.A. (Harvard University), New York, New York Pleitz, James Daniel, B.A. (Baylor University), Pensacola, Florida Prior, Thomas Edwin, A.B. (University of Georgia), Stone Mountain, Georgia Prousis, Danae, B.A. (Northwestern University), Skokie, Illinois Quillen, Michael Clay, B.A. (Vanderbilt University), Cockeville, Tennessee Reifman, William Jay, B.S. (University of Illinois), Skokie, Illinois Richardson, Clinton Dennis, B.A. (Albion College), Rome, Georgia Richey, Thomas Samuel, B.A. (Wesleyan University), Durham, North Carolina Ristine, Thomas Harley, B.A. (Wabash College), Crawfordsville, Indiana Robbins, Dale Charles, B.A. (Duke University), Lakewood, New York Rud, Victor, A.B. (Harvard University), Detroit, Michigan Sand, David Byron, B.A. (St. Olaf College), Minneapolis, Minnesota Schmudde, Lee Gene, B.A. (Cornell University), Tinley Park, Illinois Schwane, Steven Joseph, B.S. (University of Missouri), Ofallan, Missouri Seitz, Douglas Worth, S.B. (Massachusetts Institute of Technology), Cincinnati, Ohio Shane, David Norman, B.A. (Wabash College), Evansville, Indiana Siemer, Richard Clemens, B.A. (University of Illinois), Teutopolis, Illinois Sill, Richard Alvin, B.A. (Occidental College), Northridge, California Simmons, William Patton, B.A. (University of Oklahoma), Muskogee, Oklahoma Skwiertz, Albert Adam, Jr., B.A. (St. Joseph's College), East Chicago, Indiana Smith, Cheryl Paulette, B.A. (Duke University), Cartersville, Georgia Smith, Edward Jerome, B.A. (Clarion State College), M.A. (University of North Carolina at Chapel Hill), Chapel Hill, North Carolina Stacy, George Palmer, B.A. (West Virginia University), Charleston, West Virginia Stafford, Samuel Patterson, B.A. (Florida State University), Tallahassee, Florida Stajduhar, Michael William, B.A. (Westminster College). Scottsdale, Arizona

Stacy, George Palmer, B.A. (West Virginia University), Charleston, West Virginia Stafford, Samuel Patterson, B.A. (Florida State University), Tallahassee, Florida Stajduhar, Michael William, B.A. (Westminster College). Scottsdale, Arizona Steckmest, Lawrence Dean, B.A. (Stanford University), Stanford, California Tackabery, Neal Edward, B.S. (Northwestern University), Columbia, Maryland Taplin, Norman Eugene, B.B.A. (University of Miami), West Palm Beach, Florida Tietz, Paul Henry, B.S. (University of Pennsylvania), Greenwich, Connecticutt Tisdale, Norwood Boyd, A.B., M.A.T. (Duke University), Bloomfield Hills, Michigan Trull, William Jay, Jr., B.S. (University of Tennessee), Asheville, North Carolina Walsh, Michael Steven, B.A. (University of Notre Dame), Indianapolis, Indiana Welch, John Woodland, B.A., M.A. (Brigham Young University), La Canada, California Whiteside, David Powers, B.A. (Samford University), Birmingham, Alabama Wiechel, David Robert, B.A. (Ohio Wesleyan University), Jacksonville, Florida Willoughby, Michael Fueger, B.A. (University of Georgia), Savannah, Georgia Wright, Paul Michael, B.A. (Wheaton College), Canton, North Carolina

Special Student

Rosen, Gerald Martin, B.S. (Lowell Technological Institute), Ph.D. (Clarkson College of Technology), Chapel Hill, North Carolina

Graduate Students

Beskind, Donald Haskell, B.A. (George Washington University), J.D. (University of Connecticut), Westport, Connecticut

Bracy, Evelyn Cannon, B.A. (Louisiana State University), J.D. (Duke University), New Orleans, Louisiana

Lewis, James Andrew, B.A. (Yale University), J.D. (University of Chicago), Durham, North Carolina





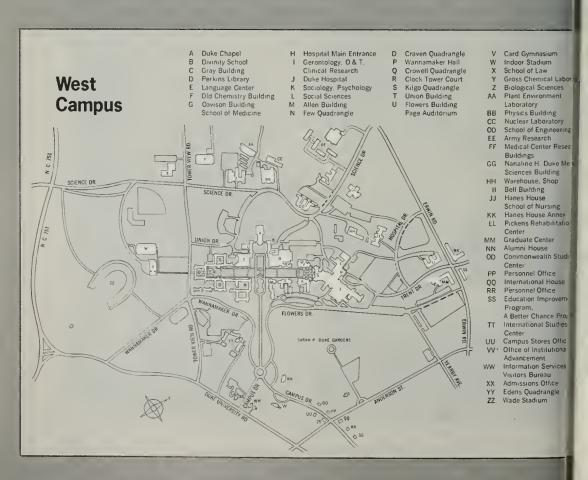






MAP OF DUKE UNIVERSITY











1975-1976 BULLETIN OF DUKE UNIVERSITY

Divinity School





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Divinity School

1975-1976

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Calendar of the Divinity School

1975

| August 27 28 29 | Wednesday—Orientation for new students begins Thursday—Orientation continues Friday, 9:00 a.m12:00 noon—Registration of all new students; drop/add for returning students |
|--|---|
| September 2 2 2 5 5 12 28 | Tuesday, 8:20 a.m.—Fall semester classes begin Tuesday—Drop add period begins Tuesday, 7:30 p.m.—Divinity School Opening Convocation Friday, 6:00 p.m.—Field Education Orientation Friday—Drop add period ends Sunday—Field Education Service begins |
| October 27-29 27, 28 29 | Monday-Wednesday—Divinity School Convocation and Pastors' School with Gray Lectures Monday, Tuesday—Fall recess Wednesday—Classes resume |
| November 4 27, 28 | Tuesday—Registration for spring semester, 1976 Thursday, Friday—Thanksgiving recess |
| December 1 9 10-11 12 19 | Monday—Classes resume Tuesday—Fall semester classes end Wednesday, Thursday—Reading period Friday—Final examinations begin Friday—Final examinations end |
| | |
| | 1976 |
| January 9 12 13 23 | |
| 9 12 13 | 1976 Friday—Orientation and registration for new students Monday—Spring semester classes begin Tuesday—Drop/add period begins |
| 9 12 13 23 March 5 15 | Friday—Orientation and registration for new students Monday—Spring semester classes begin Tuesday—Drop/add period begins Friday—Drop/add period ends Friday, 6:00 p.m.—Spring recess begins Monday—Classes resume |

University Administration

GENERAL ADMINISTRATION

Terry Sanford, J.D., LL.D., D.H., L.H.D., D.P.A., President John O. Blackburn, Ph.D., Chancellor Frederic N. Cleaveland, Ph.D. Provost Charles B. Huestis, Vice President for Business and Finance

William G. Anlyan, M.D., Vice President for Heolth Affairs Juanita M. Kreps, Ph.D., Vice President

). David Ross, J.D., Vice President for Institutional Advancement Victor A. Bubas, B.S., Vice President for Community Relations

Stephen Cannada Harward, A.B., C.P.A., Treosurer and Assistant Secretary

J. Peyton Fuller, A.B., Assistant Vice President and Controller

Harold W. Lewis, Ph.D., Vice Provost and Deon of Faculty

John C. McKinney, Ph.D., Vice Provost and Dean of the Graduate School

John M. Fein, Ph.D., Vice Provost and Deon of Trinity College of Arts and Sciences

Ewald W. Busse, M.D., Associate Provost and Director of Medical and Allied Health Education

Stuart M. Sessoms, M.D., Director of Duke Hospitol

Frederick C. Joerg, M.B.A., Assistant Provost for Academic Administration

Anne Flowers, Ed.D., Assistant Provost for Educational Program Development

William J. Griffith, A.B., Assistont Provost and Deon of Student Affairs

Joel L. Fleishman, LL.M., Vice Choncellor for Public Policy Education and Research; Director of Institute for Policy Sciences and Public Affairs

Benjamin Edward Powell, Ph.D., Librarian

William E. King, Ph.D., University Archivist

Clark R. Cahow, Ph.D., University Registrar and Director of Undergraduate Admissions

Olan Lee Petty, Ph.D., Director of the Summer Session

Rufus H. Powell, LL.B., Secretory of the University

Charles Linn Haslam,).D., University Counsel

DIVINITY SCHOOL EDUCATIONAL ADMINISTRATION

Thomas A. Langford (1956), B.D., Ph.D., Deon of the Divinity School Creighton Lacy (1953), B.D., Ph.D., Associote Deon for Curricular Affoirs Joseph B. Bethea (1972), B.D., D.D., Director of Block Church Studies Shirley O'Neal (1966), Administrative Assistant for General Administration and Finance B. Maurice Ritchie (1973), B.D., Th.M., Director of Admissions and Student Affairs Early Clifford Shoaf (1972), B.D., Director of Field Education

Division of Special Programs

P. Wesley Aitken (1963), B.D., Th.M., Director of Clinical Pastoral Education Richard A. Goodling (1959), B.D., Ph.D., Director of Programs in Postorol Psychology McMurry S. Richey (1954), B.D., Ph.D., Director of Continuing Education Robert L. Wilson (1970), B.D., Ph.D., Director, J. M. Ormond Center for Research, Planning, and Development

Division of Advanced Studies

Waldo Beach (1946), B.D., Ph.D., Supervisor of the Moster of Theology Program Dwight Moody Smith, Jr. (1965), B.D., Ph.D., Director of Groduote Studies in Religion

Library

Donn Michael Farris (1950), M.Div., M.S. in L.S., Librarion Harriet V. Leonard (1960), M.Div., M.S. in L.S., Reference Librarian Betty Walker, B.A., Circulation Librorian Linda Lacysipe, B.A., Assistont Circulation Librorion

SECRETARIAL STAFF

Mary P. Chestnut, Foculty Secretory Ann C. Daniels, Faculty Secretary Judy W. Dulaney, Administrative Secretory, Registry Vivian P. Efird, Foculty Secretory Rebecca Ann Fowler, Faculty Secretary Sarah Freedman, Foculty Secretary

Clara S. Godwin, Secretory to the Dean

Kathryn Goodrum, Secretory to the Director of Admissions ond Student Affoirs

Lesta Gatsch, Faculty Secretory

Patricia M. Haugg, Secretary to the Director of Groduote Studies in Religian

Maxie B. Honeycutt, Administrative Secretary for Student Finoncial Aid

Margie M. Meeler, Secretory to the Director of Field Education

Jacquelyn P. Norris, Faculty Secretory

Frances D. Parrish, Secretory to the Director of the J.M. Ormond Center for Research, Plonning, and Development

Marie Smith, Faculty Secretory

Norma J. Tate, Foculty Secretory and Secretory to the Director of Black Church Studies

Fleta Ware, Secretory to the Director of Admissions and Student Affoirs

Faculty

*Lloyd Richard Bailey (1971), B.D., Ph.D., Associote Professor of Old Testament

Frank Baker (1960), B.D., Ph.D., Professor of English Church History

Waldo Beach (1946), B.D., Ph.D., Professor of Christion Ethics

John K. Bergland (1973), M.Div., Associote Professor of Homiletics

*Robert Earl Cushman (1945), B.D., Ph.D., L.H.D., Research Professor of Systematic Theology William David Davies (1966), M.A., D.D., F.B.A., George Woshington Ivey Professor of Advanced Studies and Research in Christian Origins

Herbert O. Edwards (1974), S.T.B., Ph.D., Associate Professor of Block Church Studies

†James Michael Efird (1962), B.D., Ph.D., Associote Professor of Biblicol Longuoges and Interpretotion

Donn Michael Farris (1950), M.Div., M.S. in L.S., Professor of Theological Bibliography

Richard A. Goodling (1959), B.D., Ph.D., Professor of Postorol Psychology

Robert Clark Gregg (1974), S.T.B., Ph.D., Assistant Professor of Potristics and Medievol Church History

Stuart C. Henry (1959), B.D., Ph.D., Professor of American Christianity

Frederick Herzog (1960), Th.D., Professor of Systematic Theology

Osmond Kelly Ingram (1959), B.D., Professor of Porish Ministry

Creighton Lacy (1953), B.D., Ph.D., Professor of World Christianity

Thomas A. Langford (1956), B.D., Ph.D., Professor of Systemotic Theology

Paul A. Mickey (1970), B.D., Th.D., Assistant Professor of Postorol Theology

Roland E. Murphy (1971), M.A., S.T.D., S.S.L., Professor of Old Testoment

#Jill Raitt (1973). Ph.D., Associote Professor of Historical Theology

*McMurry S. Richey (1954), B.D., Ph.D., Professor of Theology and Christian Nurture

Charles K. Robinson (1961), B.D., Ph.D., Associote Professor of Philosophicol Theology

John Jesse Rudin II (1945), B.D., Ph.D., Associate Professor of Liturgy and Worship

Dwight Moody Smith, Jr. (1965), B.D., Ph.D., Professor of New Testoment Interpretation *Harmon L. Smith (1962), B.D., Ph.D., Professor of Morol Theology

David Curtis Steinmetz (1971), B.D., Th.D., Associote Professor of Church History and Doctrine

John H. Westerhoff III (1974), M.Div., Ed.D., Associote Professor of Religion and Education

Robert L. Wilson (1970), B.D., Ph.D., Research Professor of Church and Society

Franklin Woodrow Young (1968), B.D., Ph.D., Amos Rogon Kearns Professor of New Testoment and Patristic Studies

FACULTY, DEPARTMENT OF RELIGION

(Teachers in graduate program in religion whose courses are open to Divinity School students.)

David G. Bradley (1949), Ph.D., Professor of History of Religions

Kalman Bland (1973), Ph.D., Assistont Professor of Judaic Studies

James H. Charlesworth (1969), B.D., Ph.D., Assistant Professor of New Testoment

Henry B. Clark (1966), Ph.D., Associate Professor of Sociol Ethics

Roger Corless (1970), Ph.D., Assistant Professor of History of Religions

Wesley A. Kort (1965), Ph.D., Associote Professor of Religion and Literature

Bruce B. Lawrence (1971), Ph.D., Associote Professor of History of Religions

Charles H. Long (1974), Ph.D., Professor of History of Religions

Eric M. Meyers (1969), Ph.D., Associote Professor of Judaic Studies

Robert T. Osborn (1954), Ph.D., Professor of Theology

^{*}Sabbatical leave, spring semester, 1976.

[†]Sabbatical leave, fall semester, 1975.

[‡]Sabbatical leave, 1975-1976.

Harry B. Partin (1964), Ph.D., Associate Professor of History of Religions William H. Poteat (1960), Ph.D., Professor of Religion and Culture James L. Price (1952), Ph.D., Professor of New Testoment Orval Wintermute (1958), Ph.D., Associate Professor of Old Testoment

ASSOCIATES IN INSTRUCTION

P. Wesley Aitken (1953), B.D., Th.M., Choplain Supervisor of Duke Medical Center and Part-Time Assistant Professor of Clinical Postoral Education

Philip R. Cousin (1969), S.T.B., Lecturer in Church and Society

John C. Detwiler (1966), B.D., Th.M., Choploin Supervisor of Duke Medicol Center and Port-Time Assistant Professor of Clinical Postorol Education

Albert F. Fisher (1974), M.Div., Adjunct Associate Professor of Porish Work

Edwin R. Garrison (1972), B.D., D.D., LL.D., Visiting Consultant for Field Education and Continuing Education (Former Bishop of the Dokotas Areo)

*John Kennedy Hanks (1954), M.A., Lecturer in Socred Music, Director of the Divinity School Choir, and Professor of Music of Duke University

Carlyle Marney (1972), Th.M., Th.D., Litt.D., D.D., Visiting Professor of Preoching

M. Wilson Nesbitt (1958), B.D., D.D., Adjunct Professor of the Work of the Rurol Church

EMERITI

Kenneth Willis Clark (1931), B.D., Ph.D., D.D., Professor Emeritus of New Testoment and Co-Director of the International Greek New Testoment Project

James T. Cleland (1945), M.A., S.T.M., Th.D., D.D., Jomes B. Duke Professor Emeritus of Preoching William Arthur Kale (1952), B.D., D.D., Professor Emeritus of Christion Education

Hiram Earl Myers (1926), S.T.M., D.D., Professor Emeritus of Biblicol Literoture

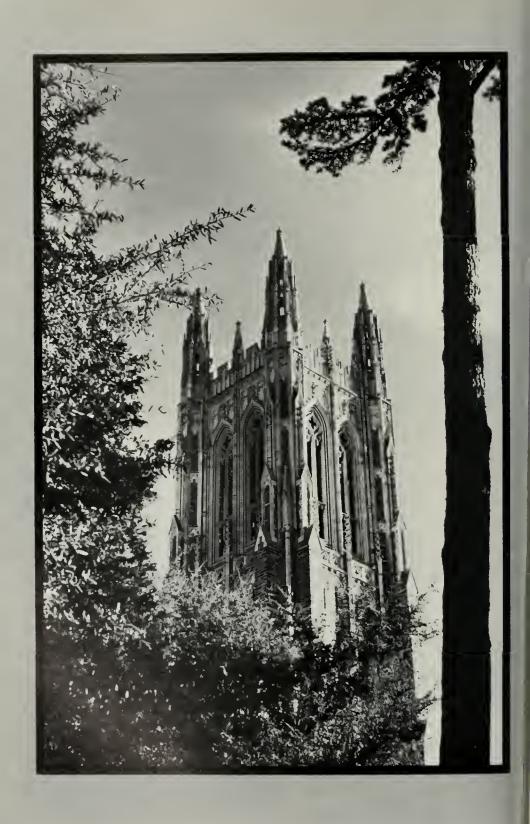
Ray C. Petry (1937), Ph.D., LL.D., Jomes B. Duke Professor Emeritus of Church History

H. Shelton Smith (1931), Ph.D., D.D., Litt.D., Jomes B. Duke Professor Emeritus of American Religious Thought

William Franklin Stinespring (1936), Ph.D., Professor Emeritus of Old Testoment and Semitics Arley John Walton (1948), B.S.L., D.D., Professor Emeritus of Church Administration and Director of Field Work

*Sabbatical leave, spring semester, 1976.





General Information



History

Duke University as it exists today has developed from simple beginnings in a school established in 1838 in North Carolina. Called Union Institute for a time, the school developed into a normal college by 1851, and in 1859 was renamed Trinity College. In 1892 the college moved to Durham, North Carolina.

Mr. James B. Duke in December, 1924, established a trust fund for educational and charitable purposes. The chief beneficiary was Trinity College, which became Duke University. The purpose for establishing the trust was very clear: "I have selected Duke University as one of the principal objects of this trust because I recognize that education, when conducted along sane and practical, as opposed to dogmatic and theoretical lines, is, next to religion, the greatest civilizing influence. . . . And I advise that the courses at this institution be arranged, first, with special reference to the training of preachers, teachers, lawyers, and physicians, because these are most in the public eye, and by precept and example can do most to uplift mankind. . . . "The School of Religion began its work in the academic year 1926-1927, and formal exercises for its opening were held on November 9, 1926. In 1940 the name was changed to the Divinity School.

During its history the Divinity School has had outstanding teachers, scholars, and administrative leaders,* and its graduates have distinguished themselves by making significant contributions to the church and the world. In 1964 a significant program of expansion was begun, culminating in February, 1972, when the Divinity School doubled its physical facilities and moved into a handsome new building. Formal dedication services were held October 31, 1972.

The Role of the Divinity School

The Divinity School represents theological inquiry and learning within the greater University. By history and indenture, it stands within the Christian tradition and recognizes its distinctive lineage in, as well as its continuing obligation to, the United Methodist Church. The Divinity School, although United

*Since the institution of the School in 1926, the following persons have served as Deans or Acting Deans: Edmund Davison Soper, 1926-1928; Elbert Russell, 1928-1941; Paul Neff Garber, 1941-1944; Harvie Branscomb, 1944-1946; Gilbert T. Rowe, Acting Dean of the Faculty, 1946-1947; Paul E. Root (elected in 1947 but died before assuming office); Harold A. Bosley, 1947-1950; James Cannon III, Acting Dean 1950-1951, Dean 1951-1958; Robert Earl Cushman, 1958-1971; Thomas A. Langford, since 1971.





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Methodist in tradition and dependency, receives students from many Christian denominations and offers its educational resources to representatives of the several communions who seek an education for a church-related ministry. From its inception, it has been ecumenical in aspiration, teaching, and practice, as well as in its faculty. Educational policy has consistently aspired to foster a Christian understanding "truly catholic, truly evangelical, and truly reformed."

The principal purpose of the Divinity School is the professional education for the ministry, which in today's world is manifested in a variety of forms. Provision to implement these increasing variations of ministry is a part of the

School's curricular resources.

Although the conventional and inherited styles of ministry are now undergoing change, the Divinity School curriculum continues to prepare students for informed and discriminating discharge of the historic offices of church and congregation through the ministry of Word and Sacrament, pastoral care, and teaching. The Divinity School believes these offices will remain, although the form

and context of "the local church" may change.

With this in mind, the Divinity School tries to prepare students for the mature performance of their vocation. It hopes to develop in each student a disciplined intelligence, informed by sound learning and equipped for worthy professional service. The resources are offered to students with a diversity of ministerial aims, although the School seeks, by recruitment and financial support, to prepare persons for ordination or lay professional vocations in the churches. This is regarded as a service to the Church, to the world, and primarily to the Lord of the Church.

The Relation of the Divinity School to Duke University

The Divinity School is an integral part of the University and shares fully in its activities, privileges, and responsibilities. The Sunday services in the University Chapel give Divinity School students each year an opportunity to hear several of the country's leading ministers. The University libraries make a rich



collection of books and other materials easily accessible. Without paying additional fees, selected courses in the graduate and professional schools are open to Divinity School students, as well as the general, cultural, and recreational resources of the University.

Library Resources

Divinity School Library. The Divinity School Library contains a collection of more than 175,000 volumes in the field of religion and related disciplines and affords an unusual wealth of material for the seminary student. Although an integral part of the University's nine-unit library system, which possesses more than 2,600,000 volumes, the Divinity School Library has its own separate facilities in the Divinity School building. Its book collection is operated on the open stack system, and its reading rooms provide study facilities for students, space for the special reference collection in religion, and for the more than 575 religious periodicals to which the library currently subscribes.

Staffed by a librarian and a reference librarian, who are trained in theology as well as library administration, by a circulation staff of two persons, and by a number of student assistants, the Divinity School Library offers a variety of reference services to assist the student in selecting and locating materials. The staff, in cooperation with the faculty, maintains a book and periodical collection to support basic courses and advanced research in all major fields of reli-

ious studies.

The Divinity School Library is adjacent to the Perkins Library. The seminary student may use the resources and facilities of the Perkins Library, some of which include manuscripts, archives, public documents, newspapers, periodicals, microfilms, maps, rare materials (among which are sixty prized ancient Greek manuscripts), and reference assistance. There is a provision for borrowing books from the libraries of the University of North Carolina and other neighboring institutions.



Admissions



Requirements and Procedures for Admission

The Divinity School is a fully accredited member of the American Association of Theological Schools and is one of fourteen accredited seminaries of the United Methodist Church. It considers candidates for admission who hold an A.B. degree, or its equivalent, from a college approved by a regional accrediting body; who have college records which indicate their ability to succeed in graduate studies; and those who have earned an academic average of at least a B-(2.65) on a 4.0 scale).

An application blank may be obtained from the Admissions Office of the Divinity School. No specific date is set for filing and no application fee is required. Applicants should return the completed form along with an official college transcript and records of all other academic credits, letters of recommendation, and a personal statement of purpose.

Applications are evaluated on the basis of this total body of credentials with regard to the candidate's academic achievements as well as his personal and professional qualifications for Christian ministry. A minimum of thirty days is

required to process any application.

The applications of students from foreign countries will be considered individually. Training equivalent to that of a baccalaureate degree from an accredited American college must have been received. All financial arrangements must be completed in writing before an admissions decision can be made.

Applicants are expected to indicate their acceptance of a notification of admission within three weeks and to confirm this with the payment of an admission fee of \$30. Upon matriculation, this fee is applied to their first term bill.

No admission is final until the Student Health Service has received a certificate of immunization and general health. This should be submitted between July 1 and September 1.

Entering students are required to take tests administered by the University

Counseling Center and the Divinity School at the time of matriculation.

Persons who do not matriculate at the time for which they were originally admitted forfeit admission unless they present a written request for postponement to the Director of Admissions and Student Affairs. A student who wishes to withdraw from school for personal reasons for a period of longer than one year should also confer with the Director and file with him a written statement of withdrawal. A student wishing to leave school for a short period of time and







resume studies at a later date should file a leave-of-absence request with the Director of Academic Affairs.

Pre-enrollment for later admission may be granted to persons who meet the Divinity School standards for admission. Applications for pre-enrollment may be addressed to the Admissions Office. Pre-enrolled students send transcripts of each year's college work by June 15 of each year in which they are pre-enrolled. Pre-enrollment does not guarantee final admission.

Pre-Seminary Curriculum. The Divinity School of Duke University follows the guidelines of the American Association of Theological Schools with respect to undergraduate preparation for theological study. In general, this means a strong background in liberal arts, especially the humanities. A well-rounded background in English language and literature, history, philosophy, psychology, religion, social science, and foreign language is especially desirable.

When a student has concentrated in the area of religion, there may be opportunity for advanced standing. This does not reduce the time or the number of hours required for graduation, but does allow the student to begin theological

work at a more advanced level.

Transfer of Credit. Under certain conditions transfer of credit from theological schools accredited by the American Association of Theological Schools is allowed by the Divinity School. Credit from another institution will not be granted exceeding one-half of the total number of credits required for graduation by the Divinity School. In each case a letter of honorable dismissal from the school from which transfer is made is required along with a transcript of academic credits.

Admission as a Special Student. Special student status may be granted with the approval of the admissions officer and the Dean. Particular circumstances must prevail in the case of such admissions. Special students are not eligible for tuition grants, scholarships, field work, or other financial aid.

Admission on Probation. Applicants for admission who are graduates of nonaccredited colleges will be considered on their merits. Ordinarily, such applicants have achieved a superior average for a four-year college course. Admission of such persons will, in every case, be on probation.

Applicants for admission who are graduates of accredited colleges but whose college transcripts do not fully meet Divinity School standards may be

admitted on probation if other factors considered justify admission.

Probation means:

1. Limited schedules of work, the amount to be determined by the Director of Academic Affairs (ordinarily no more than ten hours each of the first two semesters).

2. Ineligibility for advanced standing.

3. Review of work at the end of each semester by the Committee on Aca-

demic Standing until probation is lifted.

Students whose work after admission is not satisfactory may be placed on probation, and such students who during the first year of Divinity School maintain less than a C average, including failures, ordinarily will be required to withdraw from the School.

Conduct of Students

Duke University expects and will require of all its students continuing loyal cooperation in developing and maintaining high standards of scholarship and conduct. The University wishes to emphasize its policy that all students are subject to the rules and regulations of the University as currently in effect or as put into effect from time to time by the appropriate authorities of the University. Any student, in accepting admission, indicates his willingness to subscribe to and be governed by these rules and regulations and acknowledges the right of the University to take such disciplinary action, including suspension and/or expulsion, as may be deemed appropriate, for failure to abide by such rules and regulations or for conduct adjudged unsatisfactory or detrimental to the University.

Ministerial and Professional Qualifications. All students who are admitted to academic study in the Divinity School are subject to the established order of administrative regulations of the University and the accepted standards of personal conduct it enjoins; continuance in the School is conditional upon acknowledgment of and compliance with such regulations and standards.

In particular, the University and the Divinity School expect and require students in candidacy for degrees leading to a ministerial vocation, not only to exemplify the dignity of their calling, but also to exhibit attitude and conduct conformable with the recognized standards of their Christian profession.

On this prior understanding, therefore, the University reserves the right, and matriculation by the student is a concession of this right, to compel the withdrawal of any student whose conduct at any time is not satisfactory to the University, even though no specific charge is made against the student.

Faculty Advisers. Each entering student is assigned a faculty adviser with whom he will consult concerning his course of study throughout his years in the Divinity School.



Community Life



Corporate Worship

One of the most important aspects of a program of training for Christian service and the Christian life is a vigorous, inspiring, and varied program of participation in corporate worship. This corporate life of the Divinity School is centered in York Chapel where regular chapel services are held weekly. These services are led by members of the faculty, members of the student body, and by visiting guests. Services are voluntary but have been and will continue to be sources of inspiration and strength to the members of the community.

Living Accommodations

Duke University offers varied living accommodations to married and single graduate students. A brief description of each follows.

Residence Hall Accommodations. The Graduate Center, located near the Duke Medical Center, houses 149 male graduate and professional school students, 56 women graduate and professional school students, and 119 undergraduate women. Room assignments are made in order of application: students first applying are those first assigned.

The graduate women's section, in the center and south wings of the second floor, and the undergraduate women's section on the third floor, are separated from the men's residential area. Resident counselors advise all occupants, and

often work in conjunction with a representative house committee.

Single rooms in the men's section are reserved for returning students; other rooms are for double occupancy. Each room is equipped with the following furnishings for each student: bed with innerspring mattress, chest with mirror, desk with chair, and book shelves.

Town House Apartments. These apartments are intended primarily for single graduate and professional school students, though married students and families may be housed in individual apartments. All apartments have two bedrooms, air-conditioning, and furnishings for three students.

Central Campus Apartments. This complex of 500 units will be operated for the entire student community of the University. An allocation plan will be followed so that each segment of the student community is represented in the apart-

ments. Because of this and an expected turnover of about 25 percent annually, not all student applicants may be accommodated at the time they desire.

The first ninety-two units were open for occupancy in August, 1974. The University will open completed buildings throughout the 1974-1975 academic year and will make these units available for students in accordance with the allocation plan through the fall and spring semesters and summer months.

One-bedroom, two-bedroom, and three-bedroom apartments will be open to single students. Apartments for married students will include a few furnished efficiencies, and some one-, two-, and three-bedroom units in which the kitchen, living room, and first bedroom will be furnished. The monthly rental rates for these apartments will be lower than those for apartments offered on the Durham housing market.

Application Procedure. The Department of Housing Management provides students accepted to the University with housing application forms and detailed information on rates, rental agreements, and availability of housing. A completed and returned application form, accompanied with the required \$50 residential deposit, will reserve a housing unit.

Off-Campus Housing. The Department of Housing Management maintains lists of rental apartments, rooms, and houses provided by Durham property owners or real estate agents who have agreed to rent to students and not to discriminate in renting by race, creed, or nationality. These lists are available only in the Department of Housing Management office. The Manager of Apartments and Property and his staff will assist any member of the Duke community in seeking suitable off-campus housing; however, off-campus rental properties are not inspected or approved, nor does the University or its agents negotiate with owners for students, faculty, or staff.

For information on the cost of housing, see the section on Financial Information. For additional information, write to: Manager of Apartments and Property, Department of Housing Management, Duke University, Durham, North Carolina 27706.

Food Services. Food service on both East and West Campus is readily available. The dining facilities on the West Campus include a cafeteria with multiple-choice menus, a service area which includes cafeteria counters as well as a grill, and a table service dining room. The Oak Room, where full meals and a la carte items are served. The Cambridge Inn, a self-service snack bar, is also located in the West Campus Union and is open from 9:00 a.m. until 12:30 a.m. each day except Saturday. All types of snack and sandwich items are available there. The Graduate Center has a cafeteria open at meal hours and a coffee lounge which is open until 11:00 p.m. Because of the large number of those served in the dining halls, it is not possible to arrange special diets for individual students. The cost of meals approximates \$3.50 to \$4.25 per day, depending on the needs and tastes of the individual.

Student Health

One of the prerequisites for gaining the most from the University experience is a sense of well-being. The aim of the University Health Service is to provide medical care and health advice necessary to help the student enjoy his privilege of being a part of the University community. To serve this purpose, both the University Health Service Clinic and the University Infirmary are available for student health care needs.

The main components of the Health Service include the University Health









Services Clinic, located in the Pickens Building on West Campus, and the University Infirmary on the East Campus. Emergency transportation, if required, can be obtained from the Duke Campus Police. Residential staff personnel should be consulted whenever possible for assistance in obtaining emergency treatment.

The facilities of the University Health Service Clinic are available during both regular and summer sessions to all currently enrolled full-time students. The facilities of the University Infirmary are available during the regular sessions only from the opening of the University in the fall until graduation day in the spring to all currently enrolled full-time students.

The payment of tuition entitles the Divinity School student who is taking a

minimum of seven hours to full student health privileges.

Since the Student Health Program does not cover students while away from the Duke campus, it is imperative that student pastors and assistant pastors (winter and/or summer) who are subjected to the hazards of highway travel with great frequency, secure complementary health and accident insurance for the full twelve month period. Students whose course load entitles them to full coverage under the Student Health Program are eligible to secure a complementary insurance policy, providing protection for the entire calendar year, through the University. Costs and details of the complementary policy are available from the Director of Admissions and Student Affairs. At the time of registration, a student must enroll in this complementary insurance program or sign a waiver of liability statement regarding health care and claims. Students in internship programs carrying less than seven semester hours in any given semester are strongly encouraged to apply for this insurance. Foreign students are required to hold this or another acceptable policy.

The University has made arrangements for a student Accident and Sickness Insurance Plan to cover all full-time students for a twelve-month period. For additional fees a student may obtain coverage for a spouse or spouse and child. Although participation in this program is voluntary, the University expects all graduate students to be financially responsible for medical expenses above those covered by the University Student Health Program through the University Accident and Sickness Policy, a private policy, or personal financial resources. Students who have equivalent medical insurance or wish to accept the financial responsibility for any medical expense may elect not to take the Duke Plan by signing a statement to this effect. Each full-time student in residence must purchase this student health insurance or indicate the alternative arrangement. The Student Accident and Sickness Insurance Policy provides protection twentyfour hours per day during the full twelve-month term of the policy for each student insured. Students are covered on and off campus, at home, or while traveling between home and school and during interim vacation periods. Term of the policy is from opening day in the fall. Coverage and services are subject to change each year as deemed necessary by the University in terms of costs and usage.

Married students are expected to be financially responsible for their dependents, providing for hospital, medical, and surgical care, since their depend-

ents are not covered at any time by Student Health.

The resources of the Duke University Medical Center are available to all Duke students and their spouses and children. Charges for any and all services received from the Medical Center are the responsibility of the student as are the charges for services received from physicians and hospitals not associated with Duke University.

The Student Mental Health Service, located in the Pickens Rehabilitation Building, is under the direction of Dr. W. J. Kenneth Rockwell. Evaluations and counseling and/or treatment for matters ranging from ordinary growth and development to the most serious emotional and personal problems are available.

Motor Vehicles

Each student possessing or maintaining a motor vehicle at Duke University shall register it at the beginning of the academic year in the Security Office at 2010 Campus Drive. If a student acquires a motor vehicle and maintains it at Duke University after academic registration, he must register it within five calendar days after operation on the campuses begins. Resident students are required to pay an annual fee of \$20 for each motor vehicle or \$10 for each two-wheeled motor vehicle. Students first registering after January 1 are required to pay \$14 for a motor vehicle or \$7 for a two-wheeled motor vehicle.

At the time of registration of a motor vehicle, the following documents must be presented: state vehicle registration certificate, valid driver's license, and satisfactory evidence of automobile liability insurance coverage with limits of at least \$10,000 per person and \$20,000 per accident for personal injuries, and \$5,000 for property damage, as required by the North Carolina Motor Vehicle Law.

If a motor vehicle or a two-wheeled motor vehicle is removed from the campus permanently and the decal is returned to the Traffic Office prior to January 1, there will be a refund of \$10 for a motor vehicle and \$5 for a two-wheeled motor vehicle.

Student Organizations

The Student Association. The officers of the Student Association are elected and serve as an executive committee for conduct of the business of the Representative Assembly.

The purpose of the Association is to channel the interests and concerns of

Divinity School students to the following ends:

1. to provide student programs and activities;

2. to represent students to the faculty and administration;

3. to represent students with other Duke University organizations; and

4. to represent students in extra-University affairs.

Divinity School Choir. A student organization of long standing is the Divinity School Choir. Membership in the Choir is open to all qualified students. The Choir sings regularly for chapel and at special seasonal programs and services. New members are chosen by informal auditions which are arranged for all who are interested.

Divinity Dames. Divinity Dames is an organization of wives and women students in the Divinity School which offers opportunities for sharing interests and concerns. The Dames program, which includes a variety of speakers, small interest groups, and special projects, seeks to encourage and provide ways for wives to become a more integral part of the Divinity School community. Some activities are planned annually to include husbands and families. Faculty wives are also invited to attend Dames meetings.

The Duke Student Field Work Association. The Duke Student Field Work Association is the organization of students who participate in the Field Education Program. At least six meetings per year are held for the purpose of fellowship and preparation for the field education responsibilities.

Support Services

A special committee, composed of the Director of Admissions and Student Affairs and at least seven students and spouses, plans and carries out an extensive and varied program of support services for the community each year. These include community-wide dinners for faculty, staff, students, spouses, and families; weekend retreats; student-faculty dialogues on Fridays in the student lounge; group counseling experiences in personal growth groups, sensitivity groups, and marriage enrichment groups; special sessions and classes for spouses; and week-long retreats at Interpreters' House.

In addition to these support services programs, the Director's Office provides information and guidance for students and spouses who are seeking counseling—personal, marital, financial, or vocational. The personnel of Duke Uni-

versity and Duke Medical Center help with these counseling needs.

Conscious efforts are made to create and maintain an atmosphere of concern and support within the Divinity School community.



Financial Information



Fees and Expenses

Estimated Living Expenses. The total cost for a student to attend the Duke Divinity School varies according to individual tastes and requirements; however, experience indicates that a single student may expect to spend a minimum of \$3,800 per year with an average of \$4,000, and a married couple may expect to spend a minimum of \$6,500.

Housing Fee. The charge for each person in a double room for the academic year is \$460 in the Graduate Center. The fee for Town House Apartments, not including utilities, is \$692 each for the academic year on the basis of three students to an apartment. Fees for single students and rental rates for married students in Central Campus Apartments will be quoted by the Manager of Apart-

ments and Property.

Housing fees are subject to change prior to the 1975-1976 academic year. A \$50 deposit is required on all reservations. No refund on housing fees is made to students who withdraw after the date of registration, except for those who involuntarily withdraw because of a call to active duty in the armed forces. Such refund will be made in accordance with the University's established schedules. For further information on housing facilities, see the section on living accommodations in the chapter on Community Life.

Master of Divinity and Master of Religious Education Candidates. The table below lists basic minimum expenditures. In addition to the fees cited here, there is an admission fee of \$30 which is applied to the first term bill and a room deposit of \$50. See relevant sections on Admissions and Housing for full details.

| | Per Semester | Рег Үеаг |
|-------------------------------|--------------|------------|
| Tuition—M.Div. and M.R.E. | \$825.00 | \$1,650.00 |
| Approximate Cost of Meals | 400.00 | 800.00 |
| Room (double) Graduate Center | 196.50 | 393.00 |

Tuition will be charged at the rate of \$66 per semester hour. The figures shown are for a program carrying twenty-five semester hours per year. Students will be charged for additional hours of course enrollment, but in no case will the total tuition charge for the six semesters (four semesters or two academic years in

the case of M.R.E. degree program) cumulatively exceed the total of three academic years of study at the current tuition rate.

Master of Theology Candidates. A student who is a candidate for the Th.M. degree will be liable for tuition on the basis of twenty-four semester hours at the rate of \$68.75 per semester hour. All other costs and regulations for the Th.M. degree are the same as those for the M.Div. and M.R.E. degrees.

Special Student. A special student is one who is enrolled for academic credit, but who is not a candidate for a degree at that time. The tuition will be charged on an hourly basis. Other costs and regulations are the same as those for the M.Div. and M.R.E. candidates. No financial aid is available.

Audit Fee. Anyone seeking to audit a course in the Divinity School must, with the consent of the instructor concerned, secure permission from the Dean's office. In accordance with the general University practice, a fee of \$40 per course will be charged all auditors who are not enrolled students.

Athletic Fee. Divinity School students may secure admission to all regularly scheduled University athletic contests held on the University grounds during the entire academic year by payment of the athletic fee of \$25 per year, plus any federal tax that may be imposed. The fee is payable in the fall semester.

Payment and Penalty. The tuition is due and payable not later than the day of registration for that semester. In unusual circumstances, a student may secure permission of the Dean to delay registration, provided it is not beyond the first week of classes and the student pays the \$25 late registration fee. No student is admitted to classes until arrangements are made with the Bursar of the University for the settlement of fees.

Tuition refund will be made according to the following schedule: before the beginning of classes: full refund; during the first or second week of classes: 80 percent; during weeks 3-5: 60 percent; during the sixth week: 20 percent; no refunds after the sixth week. Tuition or other charges paid from grants or loans will be restored to those funds, not refunded or carried forward.

Debts. No records are released and no student is considered by the faculty as a candidate for graduation until he has settled with the Bursar for all indebtedness.

Motor Vehicle Registration Fee. There is a \$20 registration fee for all automobiles (\$10 for two-wheeled motor vehicles) used on campus. For specifics see the chapter on Community Life.

Student Financial Aid

A student should select his school on the basis of educational opportunity. At the same time financial consideration will be a legitimate and often pressing concern. Each student should formulate at least a tentative plan for financing his entire seminary education. Although the exact method of financing the full theological degree may not be assured at the beginning, a student should have a clear understanding of the expenses and his sources of income for the first year and the assurance that there exist ways of financing subsequent years.

The Committee on Financial Aid will counsel the student concerning financial needs and possible resources. There is constant review of available resources in order to assist the greatest number of students. However, the basic financial responsibility belongs to the student who is expected to rely upon personal and family resources and earning and borrowing power. Other resources may include the student's church, civic groups, foundations, and resources of









the school which may include grants, loans, field work grants, and employment. It is the goal of the Financial Aid Office to assist each student in planning his financial program so that as little indebtedness as possible will be incurred.

The total amount available through the Divinity School is limited. Further, the conditions set forth by the individual or institutional donors determine the circumstances under which the grants can be made. Almost without exception the donors require ecclesiastical endorsement and/or a declaration of ministerial vocational aim.

The principles regarding the disbursement of financial aid are as follows:

1. Financial aid is recommended on the basis of demonstrated need. All students must file an application which substantiates needs and provides full information on potential resources. This is essential in order to make Divinity School funds available to the greatest number of students.

The total amount of financial aid available to any one student cannot ex-

ceed the average demonstrated need.

3. Grants will be made within the limits of the conditions set forth governing each source.

4. The conditions at the beginning of the academic year determining financial needs shall be the governing criteria for the year. Financial Aid programs are set up on a yearly basis, except for those students who may enter the second

semester and/or those few whose status may change.

5. Financial Aid grants are made on a one year basis. The assistance may consist of scholarships, loans, tuition grants, grants-in-aid, field education grants, and employment which may be worked out in various combinations on a yearly basis. A new application must be filed each year.

6. Application for financial aid may be made by: (1) entering students at time of admission; (2) currently enrolled students in the spring. Notification will be given after Committee approval. Student pastors serving United Methodist Churches can be notified after the pastoral charge and Annual Conference determine salary schedules.

7. Ordinarily financial aid is not available beyond six semesters (eight for

pastors on reduced load).

Financial Resources

Personal. In order that both the Church and the Divinity School may be able to extend the use of their limited funds to as many students as possible, a student who desires a theological education should be willing to defray insofar as possible the cost of such an education. Resources may include savings, earnings, and gifts, support or loans, and, if married, earnings of spouse. In calculating anticipated income, the student first considers his own resources.

Church. Many local churches and conferences or other governing bodies provide gifts and grants for theological education, such as Ministerial Education Funds which provide grants and/or service loans to theological students. The student makes application to his own church, Annual Conference, Presbytery, or other governing body. The Financial Aid Office cooperates with these church agencies in making recommendations and in handling the funds. United Methodist students and others must be under the care of the appropriate church body to be eligible for church support. The school cannot compensate for a student's indisposition to receive church funds when such are available on application through the Annual Conference Ministerial Education Fund or other agencies.

The Divinity School, as a member school of the Association of United Methodist Theological Schools, takes cognizance of and subscribes to recommended policy and practice regarding the administration of United Methodist Church funds for student financial aid as adopted by the Association, June 15, 1970, and as bearing upon tuition grants, as follows:

"Resources for tuition grants, scholarships or the like are primarily available to students with declared vocational aims leading to ordination or recognized lay ministries and supported by commendation or endorsement of appropriate church representatives. At the same time, we believe that consideration for a tuition grant may be accorded to students who adequately indicate conscientious concern to explore, through seminary studies, a recognized church-related vocation. Finally, it is our judgment that, where the above mentioned conditions are deemed to be absent respecting a candidate for admission, the decision to admit such a candidate should be without the assurance of any tuition subsidy deriving from church funds." (AUMTS Minutes, June 15, 1970.)

Divinity School Scholarships. A limited number of scholarships are available to encourage qualified students to pursue their preparation for the Christian ministry. Such students ordinarily will not be eligible for remunerative employment during the academic year. When a student holding a scholarship is permitted to engage in remunerative employment, it is understood that adjustments may be made in the total scholarship and financial aid program for that student.

Junior Scholarships. Junior scholarships are available to a limited number of entering students of the junior year who are candidates for the Master of Divinity degree and are awarded on basis of academic record and promise of usefulness in Christian ministry. These scholarships are for the amount of up to \$750 depending upon demonstrated need. Tuition grants in varying amounts are also available up to full tuition if demonstrated need warrants. Further, if the student applies, he may anticipate placement for the Summer Endowment and Field Education Program. Junior Scholarships are not renewable.

National United Methodist Scholarships. The General Board of Education of the United Methodist Church makes available two \$500 scholarships to rising middlers who have made outstanding records in the first year class. The Department of the Ministry offers these scholarships to students preparing for the parish ministry.

Middler Scholarships. Ordinarily five Middler Scholarships of up to \$750 are made available to rising middlers on the basis of academic attainment, character, and promise for the Christian ministry. The exact amount of the scholarship is dependent upon demonstrated need of the student.

Senior Scholarships. Two Rowe Scholarships for seniors and five additional Senior Scholarships in amounts of up to \$750, depending on demonstrated need, are awarded to rising seniors who have achieved academic excellence and who give unusual promise of service in the Christian ministry.

Foreign Student Scholarships. In cooperation with the Crusade Scholarship Committee of The United Methodist Church and other authorized church agencies, students are selected and admitted to courses of study. Scholarships for such students are provided from the Lewis Clarence Kerner Scholarship Fund and from individual churches and private philanthropy.

Tuition Grants. These are available in amounts commensurate with demonstrated need as adjudged by the Committee on Scholarships and Financial Aid. Entering students may apply, on notice of admission, by submitting the Financial Aid Inventory to the Office of Financial Aid. Enrolled students may apply by annual renewal of their Financial Aid Inventory. Because of the purpose and attendant educational objectives of the school, resources for tuition grants are primarily available to students with declared ministerial aims or those wishing to explore a ministerial vocation leading to ordination or recognized lay ministries.

Field Education Grants. Varying amounts are made available through the Divinity School to students who choose to participate in the Field Education Program. The Offices of Field Education and Financial Aid work together in determining placement and grant amount. This program includes the following: (1) summer assistants, (2) winter assistants, and (3) student pastors. See full description under the section on Field Education.

Loans. Loan funds held in trust by the University, as well as United Methodist Student Loans and funds supplied by the federal government, through the National Defense Education Act of 1958, are available to qualified students. Submit application by July 1.

Unless otherwise indicated, all correspondence concerning financial aid should be directed to: Financial Aid Office, The Divinity School, Duke Univer-

sity, Durham, N. C. 27706

Employment. Students or wives desiring employment with the University should apply to the Director of Personnel, Duke University. Students or wives make their own arrangements for employment either in the city of Durham or on campus.

Financial Aid Resources

Certain special funds have been established, the income from which is used to provide financial aid through scholarships and Field Education Grants for students wishing to secure training in preparation for Christian ministry. The resources listed below include endowed funds and sources of annual contributions.

R. Ernest Atkinson Legacy. This legacy was established in 1952 under the will of the Reverend R. Ernest Atkinson, Trinity College Class of 1917, of Richmond, Virginia.

Emma McAfee Cannon Scholarship. This scholarship was established in 1969 by Bishop William R. Cannon in memory of his mother, Emma McAfee Cannon, and is designated to assist students from the North Carolina Annual Conference of the United Methodist Church who are studying for the pastoral ministry and planning to spend that ministry in the North Carolina Conference.

Cleland Scholarship Fund. This fund was established in 1963 by Alice Mead Cleland and James T. Cleland to provide travel expenses for a graduating senior and spouse. The recipient is chosen annually for a year's appointment as an assistant minister in the Church of Scotland.

E. M. Cole Fund. This fund was established in 1920 by Mr. Eugene M. Cole, a United Methodist layman of Charlotte, North Carolina.

Dickson Foundation Awards. These awards were established by the Dickson Foundation of Mount Holly, North Carolina, to provide assistance to students who demonstrate financial need and superior ability. Preference is given to children of employees of American and Efird Mills and its subsidiaries, to residents of Gaston, Caldwell, and Catawba Counties, and to North Carolinians.

The Duke Endowment. Among the beneficiaries of the Duke Endowment, established in 1924, are the rural United Methodist churches of the two North Carolina Conferences. Under the Maintenance and Operation Program, Field Education Grants are available for Duke Divinity School students to serve in rural United Methodist churches under the Endowment and Field Education Program.

N. Edward Edgerton Fund. This fund was established in 1939 by Mr. N. Edward Edgerton, Trinity College Class of 1921, of Raleigh, North Carolina.

George D. Finch Scholarship Fund. This fund was established in 1972 by Mr. George David Finch, Trinity College Class of 1924, of Thomasville, North Carolina.

James A. Gray Fund. In 1947 Mr. James A. Gray of Winston-Salem, North Carolina, presented this fund to the Divinity School for use in expanding and maintaining its educational services.

P. Huber Hanes Scholarship. This scholarship was established by the late Mr. P. Huber Hanes of Winston-Salem, North Carolina, Trinity College Class of 1900, as a scholarship fund for Duke University, a portion of which is used to provide financial assistance for Divinity School students.

Richard R. Hanner, Jr. Scholarship. This scholarship was established in 1973 by friends of the late Richard R. Hanner, Jr., Trinity College Class of 1953, to support advanced work in Christian education.

Franklin Simpson Hickman Memorial Fund. This fund was established in

1966 by Mrs. Veva Castell Hickman as a memorial fund in memory of her husband, who served as Professor of the Psychology of Religion, the Dean of the Chapel of Duke University, and the first Preacher to the University. The income of the fund will support a regular visiting lecturer in preaching and financial aid to students who wish to specialize in the psychology of religion.

George M. Ivey Scholarship Fund. This fund was established in 1948 by a gift of Mr. George M. Ivey, Trinity College Class of 1920, of Charlotte, North Carolina.

Charles E. Jordan Scholarship Fund. This fund was established in 1969 by the family of Charles E. Jordan, former Vice President of Duke University.

Lewis Clarence Kerner Scholarship. This fund was established in 1959 by Beatrice Kerner Reavis of Henderson, North Carolina, in memory of her brother and designated for the assistance of native or foreign-born students preparing for service in world Christian mission.

Laurinburg Christian Education Fund. This fund was established in 1948 by members of the First United Methodist Church, Laurinburg, North Carolina.

Myers Park Scholarship Fund. This fund was established in 1948 by members of the Myers Park United Methodist Church, Charlotte, North Carolina.

W. R. Odell Scholarship. This scholarship was established in 1946 by the Forest Hills United Methodist Church, Concord, North Carolina.

Gilbert T. Rowe Memorial Scholarship Fund. This fund was established in 1960 through the generosity of Divinity School alumni and friends of the late Professor of Systematic Theology.

Elbert Russell Scholarship. This scholarship was established in 1942 by the Alumni Association of the Divinity School in honor of the late Dean of the Divinity School and Professor of Biblical Theology.

Earl McCrary Thompson Scholarship. This scholarship was established in 1974 in honor of the late Earl McCrary Thompson, Trinity College Class of 1919.

Hersey E. Spence Scholarship. This scholarship was established in 1947 by the Steele Street United Methodist Church of Sanford, North Carolina, in honor of their former pastor and late professor in the Divinity School.

The United Methodist Church. The United Methodist Church makes a substantial contribution to the Divinity School by designating a percentage of its Ministerial Education Fund and World Service Offerings for theological education.

The general Board of Education makes available annually two National United Methodist Scholarships having a cash value of \$500 each.

The Divinity School Fellowship. This fellowship was established by a group of interested laypersons who provide support for students with demonstrated need.

Dempster Graduate Fellowships. The United Methodist Board of Education offers two fellowships each year for graduates of United Methodist theological schools who are engaged in programs of study leading to the Ph.D. degree in Religion. A number of Divinity School graduates have held these fellowships.



Field Education



The Theological Perspective

Field education for ministry is an authentic learning-serving context where genuine encounter produces growth in ministry competence and self-understanding. As the clinical dimension of theological education, field learning is designed to: (1) help the student develop his own vocational self-identity as a minister by providing situational experimentation with a variety of ministry tasks; (2) provide a ground for the testing and reconstruction of theological, psychological, and sociological concepts; (3) develop the ability to do critical and reflective thinking by relating theory to experience; (4) help the student formulate and experimentally refine his own unique ministry skills to achieve an acceptable level of professional competence; (5) integrate academic studies, experiential discovery, and reflective insights into a personal spiritual foundation that produces a confident and effective ministry.

An Educational Program

Field education is designed to place Divinity students in situations where they can bring their theological concepts to bear upon the problems and dilemmas of real life; where they can develop skill in ministerial functions; where they can bring the perceptions of personal experience to bear on their reflective studies; and where these perceptions may be integrated into the student's life and expressed in effective ministry behavior.

A field context has built into it such specific learning components as: student-made learning contracts, field supervision and learning guidance reflection groups, peer groups, investigation-research projects, seminars, integrative tutorials, directed readings, and evaluation processes. These elements constitute the academic discipline that connects experience into meaningful learning and provides the basis for legitimate educational credit.

Field Education Credit Requirements

In an appropriate effort to sustain the learning focus of field education, the faculty has approved the following credit requirement plan. One unit of approved field education work is required for graduation certification in the Master of Divinity degree program. A unit is defined by one term placement, either a summer term of ten weeks or a winter term of thirty weeks at sixteen hours per week. To be approved, the field placement program must have qualified and







sustained supervision, adequate ministry tasks capable of producing genuine learning, and effective evaluation. The program must allow the student to participate in a learning group organized by the Director of Field Education. A student may satisfy the credit requirement by: (1) pre-enrolling in a peer group concomitant with the approved term placement; (2) acceptable completion of an approved internship, or a quarter of clinical pastoral education, or a senior Ministering-in-Context Project; or (3) a special project in a student pastorate appointment.

To qualify for credit the student must preregister for the approved placement, develop and complete a learning contract with acceptable quality of work, cooperate with the supervisor, participate in the assigned learning groups and seminars, and prepare an evaluation of the project. Evaluation and grading will be done jointly by the field supervisor, student, and peer group leader, utilizing self-assessment, a rating scale, and a written report.

Additional credit is associated with various course offerings and practicum projects listed in the section on courses of instruction. These particular credits are independent of the required field education unit and may not be substituted

for it.

Please note that beginning in the fall semester, 1976, the faculty has voted to require two units of field education for the completion of the M.Div. degree.



Field Settings for Ministry Development

Field placements are usually made in settings that have been developed and approved by the Divinity School. The criteria for acceptance of a field setting for learning and service include: (1) a complete description of the setting and the job to be performed; (2) an identification of a wide variety of ministry functions and tasks to be done; (3) the agreement of a lay committee to share in the student's guidance and evaluation; (4) an adequate funding plan; (5) the provision of competent supervision on a regular basis either by the pastor, agency director, or a specialist assigned for this purpose; (6) the participation in reflection and evaluation procedures by pastor, laymen, and related agency personnel; (7) the development of a performance contract with the agency or parish which summarizes these agreements.

A wide variety of ministry settings is available for varying student interests: parish settings include rural, suburban, central urban, cluster groups, larger parish patterns, staff team ministries; social agency settings include a settlement house, Human Relations Commission, Women-in-Action, rest homes, social services center, mental health clinics; institutional settings include hospitals, mental health institutions, prisons, youth rehabilitation centers, a mental retardation center, retirement homes, and government agencies; campus min-



istry settings include positions on the campus of a variety of schools; resort ministries in the summer term, and youth camps.

Internship Program

An internship assignment embraces both a full-time salaried position and a learning commitment in a single context over a period of time ranging from nine to twelve months. These assignments are designed to engage the student in considerable depth in particular ministry skills in a setting relevant to the vocational area of interest. They must encompass an advanced level of specialized field experience which is more complex and extensive in its learning potential than the basic field education program short-term placement. The internship may be individually designed to meet the needs and interests of the student, provided that the plan includes a student learning contract, an agency performance contract, approved supervisory standards, an investigation-research project acceptable to the assigned faculty adviser, participation in either a reflection group or seminar, and enrollment for course work in a nearby college or university. When

these components are satisfactorily met and the evaluation reports are filed, credit for up to six semester hours may be assigned for the internship. No additional academic credit may be accumulated during the internship year. Grading

for the six semester hours will be on a pass/fail basis.

Internship settings may be student initiated or negotiated by the Divinity School. In either case an agency contract covering all agreements must be made and filed with the Director of Field Education. General settings currently available for internship placement include: campus ministry and college chaplaincy positions; parish ministry positions—such as associate pastor, parish director of education; social agency and institutional positions—both secular and church oriented; a World Mission Internship of one to three years of national or overseas service; and occasional governmental positions. Other internships in the church or in specialized ministries in the secular world may be planned in consultation with the Director of Field Education.

To be eligible to register for an internship, the students must have completed at least two full years of their seminary curriculum and be registered as a student in good standing in the Divinity School. Application forms and processing for

internships will be done through the Office of Field Education.

Students Serving As Pastors

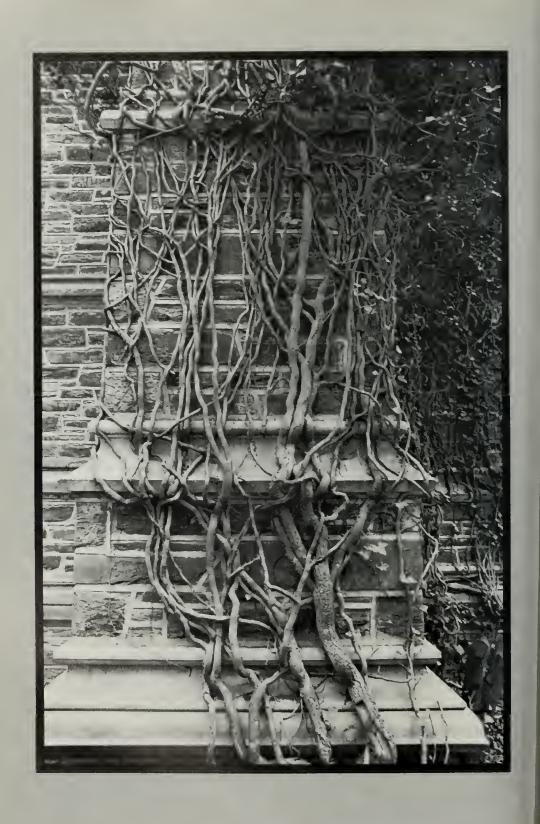
Students frequently serve as pastors or part-time associates of churches during the period of their study in the Divinity School. These appointments are made by the appropriate denominational official or body. Although the Divinity School recognizes this arrangement, the student should have the approval of the Director of Field Education, as agent of the Dean, before accepting an appoint-

ment as pastor or associate pastor.

The Office of Field Education cannot make these appointments. This is within the jurisdiction of denominational authorities, and students should initiate their own arrangements. The Office of Field Education, however, will provide current information concerning pastoral appointments open to students and will send references upon request to ecclesiastical officials. Salaries and other forms of remuneration for this pastoral service must be reported to the Financial Aid Secretary of the Divinity School when application is made for financial aid from the school.

Students who serve in these capacities ordinarily may enroll in not less than seven or more than ten hours per semester, thus requiring, in most cases, four academic years to complete the Master of Divinity degree. Relaxation of this regulation requires the permission (on the appropriate form) of the supervising church official, the Director of Field Education, and the Director of Academic Affairs. Further, if the student's residence is located more than fifty miles from the campus, he will be required to live on campus during the academic week. Any departure from this requirement must be negotiated with the Director of Field Education.

In keeping with the Divinity School's goal to develop professional competence in ministry, students should use their pastoral appointment as a learning context for field education programs initiated by the School. Special seminars and reflection groups may be arranged in consultation with students to advance their professional growth and performance. For particular field learning projects, a supervisor may be assigned to guide the pastor's learning activity in his parish. Periodic evaluation will be expected from both supervisors and pastors. The required field education units may be done in the pastor's parish, if all the conditions outlined for credit are met, and all reports are completed and filed at the appropriate time.



Program Information



Degree Programs

The academic work of the Divinity School embraces three degree programs. These are: the Master of Divinity degree (M.Div.) ordinarily of three academic years; a one-year program beyond the basic degree, the Master of Theology (Th.M.); and a third program of two academic years leading to the degree of Master of Religious Education (M.R.E.). All are graduate-professional degrees. Admission to candidacy for the Master of Divinity and Master of Religious Education degrees presupposes the completion of the A.B. or its equivalent.

Students preparing for ordination to the Christian ministry and requiring appropriate graduate-professional education will enroll for the Master of Divinity degree. Students whose acquired academic standing, under this basic degree program, entitles them to further specialized study may advance their command of selected theological disciplines by applying for an additional year of studies leading to the Master of Theology degree. Together, these two degree programs constitute a sequence. Although the Master of Divinity degree fulfills requirements for ordination by prevailing ecclesiastical standards, the Th.M. program may assist in assuring a larger measure of professional preparation. Application for admission to the Th.M. program is open to graduates of other schools who have completed the basic theological degree.

The Master of Religious Education degree program is designed to prepare qualified persons, ordinarily not seeking ordination, for a ministry of Christian education in local churches or other organizations. The course of study is arranged to provide grounding in Biblical, historical, and theological disciplines as essential background for instruction in and exercise of professional competence in curricular planning, teaching methods, and supervision of educa-

tional programs for various age groups.

The specific requirements for each of these degrees are found in the succeeding pages. It is evident that completed course work cannot be credited toward more than one degree. Reciprocal transfer of credit for course work taken under either the M.Div. or the M.R.E. program requires the permission of the Director of Academic Affairs.

Doctoral Studies Accredited by the Graduate School

The Divinity School provides a substantial body of course offerings at an advanced level in Biblical, historical, and systematic and contemporary theological disciplines that are accredited alike by the Graduate School and the faculty of the Divinity School, and lead to the Doctor of Philosophy degree. Sharing responsibility with the University Department of Religion for staffing and curricular provision of this course of study, the Divinity School is the principal contributor to the program of graduate studies in religion. However, since the Ph.D. in religion is certified and awarded under the Graduate School, the doctoral student's admission and matriculation are administered under that division of Duke University.

With few exceptions, most courses in the *Bulletin of the Divinity School* carrying a 200 number or above and belonging to the fields noted above are applicable to doctoral programs of study. These courses are open to qualified

M.Div. or M.R.E. students by permission of the instructor.

Qualified persons who desire to pursue studies leading to the degrees of M.A. or Ph.D. in religion, under the administration of the Graduate School, are advised to apply to the Dean of that School. Inquiries concerning fellowships or specific requirements of the Program of Graduate Studies in Religion may be addressed to Professor D. Moody Smith, Jr., Director, 209 Divinity School.

The Basic Theological Degree—Master of Divinity

The faculty of the Divinity School constantly endeavors to review the curriculum as a whole and to tailor individual courses to meet the needs of a rapidly changing world. Major curricular revisions were instituted in 1948, 1959, and 1967. The curriculum is, therefore, not static but dynamic and is always subject to emendation by the faculty.

This degree program is structured to elicit a positive response to: (1) the challenge to provide an adequate professional education—education for ministry; (2) the needed variability of ministries in today's complex world; (3) the norms of university education; and (4) the Christian tradition.

Aims of the Curriculum. The aims of the basic degree program focus upon four goals, four areas of personal and curricular responsibility, four life-long tasks which should be strongly advanced during the seminary years.

1. The Christian Tradition. To acquire a basic understanding of the Biblical,

historical, and theological heritage.

2. Self-understanding. To progress in personal and professional maturity—personal identity, life style as an instrument of ministry, major drives, handling of conflict, resources, professional competency, and so forth. This is to be coupled with a sensitivity to the world in which we minister—its social forces, its power structures, its potential for humanization and dehumanization.

3. Thinking Theologically. To have the ability to reflect about major theological and social issues and to define current issues in theological terms and

theological issues in contemporary secular terms.

4. Ministering-in-Context. To have the ability to conceptualize and par-

ticipate effectively in some form of contemporary ministry.

Goals of such scope cannot be neatly programmed in any curriculum, and the degree of achievement (in seminary and beyond) will vary with the individual and his own motives and incentives.

The Basic Curriculum—General Description. The basic curriculum leading to the Master of Divinity degree provides for foundational courses in Biblical, historical, theological, and ministry studies, representative of the tradition and regarded as indispensable background for subsequent elective work and individual program information.

These required courses total twenty-four of the seventy-five semester hours

necessary for graduation. They are Old Testament 11, New Testament 18, Church History 13 and 14, American Christianity 28, Christian Theology 32, and Christian Ethics 33. The opportunity of advanced standing adds further variability to the academic program of the junior student, depending upon the nature and quality of his undergraduate academic work. A total of fifty-one semester hours is available to the student for working out an individualized program of studies leading to specialized preparation in academic depth and for purposes of professional ministerial competence.

Required courses may be staffed by one or more professors and are planned

to treat subject matter both in scope and depth at the graduate level.

Especially designed courses for entering students of the junior year in the area of Church and Ministry offer experience in group learning and are strongly recommended. These courses are introductory to various aspects of the work of the Church and its ministry in relation to altering societal contexts. These courses are Church and Ministry 9 and 10, Pastoral Psychology 70, Christian Theology 108, and The Care of the Parish 157 (see section on Courses of Instruction for descriptions of these courses).

The formulation of the student's course of studies is guided by certain broad but normative recommendations for area distribution of courses and by the advice and counsel of appointed faculty advisers or authorized directors.

Students and advisers are directed to read diligently the paragraphs on elective studies and professional aims and distribution of elective studies of the sec-

tion entitled Administration of the Curriculum.

All academic programs are subject to review and emendation by the Dean and the Director of Academic Affairs for the fulfillment of the aims of the curriculum. The declared vocational and professional objective of the student is of central importance both to the student and his faculty adviser in planning the student's comprehensive study program.

Six semesters of residential study are ordinarily required for the completion of the degree. With permission of the Director of Academic Affairs, certified nonresidential study, not exceeding the equivalent of twenty-four semester

hours, may be permitted to a candidate for the basic degree.

The normal course load per semester is twelve or thirteen semester hours. A student with demonstrated competence may, with the consent of his academic adviser and the Director of Academic Affairs, enroll for an additional 2- or 3-hour course in the middler and senior years. However, it is expressly noted here that the delimitation of the semester course-hour load and the total credit hour requirement for graduation entitles both student and instructor to expectations of substantial student investment and accomplishment in individual courses. The emphasis of the curriculum is upon depth and competence rather than excessive scope.

General Features of the Basic Curriculum. The following is a brief summary of the basic curriculum:

1. Seventy-five semester hours and six semesters of residency are required

for graduation.

2. Each student is required to complete an approved assignment in field education (with or without remuneration) under supervision.* Such assignments might include an internship, a summer of full-time work, two semesters of part-time work, or involvement in church or community service. The essential criteria for graduation credit are that the amount and quality of super-

^{*}Beginning in the fall semester, 1976, two units of field education will be required for graduation.

vision be approved by the Office of Field Education, and that the student be required to evaluate and correlate the experience directly.

3. A normal academic load is four courses with credit.

4. Professionally oriented courses for entering students are offered in the

fall semester of the junior year in the area of Church and Ministry.

There are special allowances of up to three semester hours of credit for field education projects under faculty supervision; up to six semester hours credit for independent study; up to six semester hours clinical or internship credit; ordinarily up to six semester hours of cognate studies of graduate standing in Duke University, with the advice of the student's academic adviser and the Director of Academic Affairs. Enrollment for cognate graduate study outside the University requires the approval of the Director of Academic Affairs. This includes studies abroad.

THE CURRICULAR PARADIGM+

Junior Year

| Fall Semester | s.h. | Spring Semester | s.h. |
|--|----------|--|------|
| Old Testament 11 (or OT elective for advanced standing) Church History 13 (or CH or HT | 4 | New Testament 18 (or NT elective for advanced standing) Church History 14 (or CH or HT | 4 |
| elective for advanced standing) | 3 | elective for advanced standing) | 3 |
| Elective | 2 or 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| | | | _ |
| Total | 12 or 13 | Total | 13 |
| Middler Year | | | |
| Fall Semester | s.h. | Spring Semester | s.h. |
| Systematic Theology 32 | 4 | Christian Ethics Introduction 33 | 3 |
| American Christianity 28 | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| Elective | 3 | Elective | 3 |
| | _ | | _ |
| Total | 13 | Total | 12 |

†Senior year-elective courses, 12 s.h. fall and spring.

Administration of the Curriculum

General Regulations. The following regulations pertain to students enrolled in the regular curriculum:

1. Full-time students are required to enroll for the required courses of the curriculum or for alternative courses offered for advanced standing in the order

provided by the master schedule of the curricular paradigm.

- 2. Students in programs leading to either the Master of Divinity or Master of Religious Education degree are required at the time of each registration period to plan their course of study with the consultation and approval of their assigned faculty advisers. Such programs are subject to the review and approval of the Committee on Academic Standing, the Dean, and the Director of Academic Affairs.
- 3. Students in candidacy for the Master of Divinity degree who serve as full-time pastors or work more than fifteen hours per week in addition to their academic course work are advised that their programs will usually require a

fourth academic year. Modification of this schedule requires the approval of the Director of Academic Affairs on recommendation of the Director of Field Education.

- a. Students with pastoral charges, or comparable extracurricular responsibilities, ordinarily will enroll for not less than seven semester hours nor more than ten.
- b. Students who accept pastoral charges in their middler or senior years are required to have the prior approval of the Director of Field Education. Such students will be required to restrict their course work in accordance with regulation 3a stated above.
- c. Modifications of these regulations will be scrupulously administered. Academic achievement must be demonstrated before any modification of these requirements is allowed. Since adequate indication of the student's academic proficiency is not available before the completion of the first academic year, no modification of regulation 3a is possible for junior students.
- d. Ordinarily a student may not commute more than fifty miles (one way). Students living farther away than this will be required to live on campus during the academic week.
- 4. Student Assistant Pastors (not pastors-in-charge) may enroll for a full academic load if they are not on probation, if they are under the supervision of the Director of Field Education, and if their field duties involve no more than fifteen hours per week.

5. A student in candidacy for the Master of Divinity or Master of Religious Education degree is expected to enroll for no less than seven semester hours in any semester. Exceptions require approval of the Director of Academic Affairs.

- 6. Study abroad, with transferable credit toward graduation, may be allowed for a candidate for the Master of Divinity degree by approval of the Director of Academic Affairs. A strong academic record is a prerequisite. Ordinarily, permission for such study may be granted to students who have completed the work of the middler year. Both the institution abroad and a specific course of study proposed must have the prior approval of the Director of Academic Affairs.
- 7. Transfer of credit to the Divinity School of Duke University, leading to candidacy for the degree of Master of Divinity, ordinarily may not exceed in amount more than one-half of the academic credits (in proportional evaluation) required for fulfillment of degree candidacy (see chapter on Admission).
- 8. Auditing of courses is permitted on notice to the Director of Academic Affairs and by permission of the faculty instructor concerned. Auditors who are not candidates for degrees are charged \$40.
- 9. Students in candidacy for a degree who secure minor employment outside the channels of the Office of Field Education are required to inform the Director of Field Education. Students carrying an outside employment work load of more than fifteen hours weekly will be required to limit their academic load.
- 10. Ordinarily it is expected that the work for the M.Div. degree be completed in three academic years (four for students on probation, who serve as pastors, or who serve internship years). Extension of the student's work beyond six years from initial matriculation requires the approval of the faculty.
- 11. Students may, with permission of the faculty adviser and the instructor involved, take up to six hours of independent study. These independent study courses are ordinarily courses at an advanced level which cover material not available in the regular curricular offerings. If students wish to take more than six hours of independent study, they may do so with permission from the











Director of Academic Affairs in consultation with the student's faculty adviser and the instructor who directs that program of study.

Advanced Standing. Advanced standing allows entering students to begin work in any given field at a level higher than that of the required curriculum, or to substitute a specialized or cognate course for a required one.

Entering students with substantial undergraduate preparation in areas closely related to required courses of the Divinity School may be eligible for advanced standing. Although a student may be eligible for advanced standing in any subject, it is especially pertinent where students offer undergraduate majors of superior quality in Bible, religion, or philosophy. Students entering with six or more semester hours in the Greek language, for example, may enroll in advanced Greek courses (New Testament 118, 119, 226, and 227). The fields in which entering students, by virtue of previous undergraduate study, are most likely to qualify for advanced standing are: Old Testament, New Testament, and church history.

An entering student with not less than six semester hours of college credit, and a grade of *B* or better in one or more of these areas, may ordinarily anticipate

advanced standing in corresponding required courses. All final transcripts will be studied, and advanced standing will be accorded to those who qualify under this provision.

A student with not less than three semester hours of college credit with a grade of B or better in one or more of these areas may be granted advanced standing if he passes a qualifying examination. Entering students who qualify under this provision must, on notice of admission, request permission to take this examination.

Students offered advanced standing at the time of matriculation may, after consultation with their faculty advisers, decline such standing and enroll in the required course. A summary of advanced standing options will be available at the time of registration.

Curricular Provisions and Procedures. Admission to candidacy for the Master of Divinity degree is admission to the regular program of studies. The master schedule constitutes the prospectus for the basic theological degree. The prospectus defines the normal sequence of the student's developing program. Exceptions are not permitted unless the student is on a limited program, such as that for student pastors who arrange their studies over four years, or special students.

Students who matriculate for the second semester of the junior year in January must fulfill requirements of the first semester of the junior year the succeeding fall semester.

The curriculum intends to serve graduate-professional aims with maximum flexibility. Fifty-one elective course hours are available and may be programmed to satisfy vocational and professional preferences. In planning a course of study, the student, in consultation with his adviser, should choose a program which will give a greater understanding and appreciation of future professional responsibilities. Members of the faculty and staff welcome inquiries.

Professional ministries include those of the parish, preaching, teaching, and pastoral care; ministries of education in local churches and higher education; missions; campus ministry; specialized urban and rural ministries; chaplaincies—hospital, institutional, industrial, and military; teaching; religious journalism; audio-visual communications; church agencies; and ecumenical ministries at home and abroad. For many of these, further specialized training will necessarily be sought elsewhere beyond the basic degree. For all of these ministries the student's program of studies can be shaped for the particular ministry in view.

Students are encouraged to elect one course in each of the following areas or subdivisions of the curriculum beyond the required courses. The course should be selected with a view to the individual student's vocational and professional aims:

American Christianity History of Religion Christian Education World Christianity and Ecumenics Biblical Exegesis
Pastoral Psychology
Christian Ethics
Worship and Preaching
Care of the Parish (including
Church and Community)

Students are also encouraged to concentrate, usually in not more than five advanced courses in any one subdivision of the curriculum, in an area directly related to their vocational and professional intention.

The program of each student is subject to review and revision by action of the faculty adviser, the Committee on Academic Standing, the Director of Academic Affairs, or the Dean.

General Information

Ordination and Disciplinary Requirements. Students preparing for ordination are strongly advised to fulfill denominational requirements for study of church polity. United Methodist students must attend to regulations of the Discipline, paragraph 344. The following courses have ordinarily been accepted as fulfilling requirements of the Discipline: CT 32, Christian Theology, CH 139 or CH 140, Methodist Church History, CP 155A, Methodist Polity. Students from other denominations should consult with their appropriate church bodies for specific requirements.

Graduation Credits. It is the responsibility of each student to see that he meets all requirements for graduation and to take his courses in proper sequence. He is also responsible for seeing that any special permission granted him to deviate from the normal program is properly recorded in his personal files in the office of the Director of Academic Affairs.

Grading System. As of the academic year 1971-72, the Divinity School employs the grading scale with the following letters A, B, C, D, and F which have been defined as follows: A, Excellent; B, Superior; C, Average; D, Passing; F, Failure; P, Withdrew Passing; P, Withdrew Failing; P, Withdrew Illness; P, Withdrew, discretion of the Dean; P, Incomplete; P, Passed; P, Non-credit; P, Year course.

The denotations are defined as follows according to quality points: A, 4; A-, 3.7; B+, 3.3; B, 3.0; B-, 2.7; C+, 2.3; C, 2.0; C-, 1.7; D+, 1.3; D, 1.0; D-, 1.0; F, 0.

In all courses where the instructor considers attendance a necessary part of the work of the course, a student may not receive a grade of over *C* if his absences total 12 percent of the regular class periods, and if the absences total 24 percent of the class periods he may not receive credit for the course.

Incompletes. A student may petition the Director of Academic Affairs to receive a grade of Incomplete in a course. This petition must be filed in writing on the prescribed form with the Director on or before the last official day of classes of the semester in question. Such permission may be granted when a student, through some circumstances beyond his control, such as illness, has been hindered from meeting the course requirements. Adjudication of the petition will rest with the Director and the instructor concerned. The Director will communicate in writing to the student regarding the joint decision and any conditions attached thereto. An Incomplete becomes an F unless it is removed through completion of assigned work by the following dates:

for incompletes incurred in fall semester courses, February 1; for incompletes incurred in spring semester courses, September 15.

Change of Course or Withdrawal. A student is permitted to change his registration for course work without incurring a penalty during the prescribed drop/add period at the beginning of each semester. The adding of a course requires the permission of the instructor of that course as well as the student's faculty adviser.

No student shall be permitted to withdraw from a course after one-third of the period of instruction of the course without incurring failure, except for causes adjudged by the Director of Academic Affairs to be beyond the student's control. Conditions of emergency and not considerations of convenience shall be regarded as determinative in considering requests.

Graduation With Distinction. Students who achieve a grade point average



of 3.85 for overall academic records in the Divinity School are granted the degree of Master of Divinity, Master of Theology, or Master of Religious Education, summa cum laude. Students with a grade point average of 3.65 are awarded such degrees, magna cum laude. Such distinction is specified on their diplomas.

The Master of Religious Education Degree

The course of study leading to this degree is designed for persons desiring to prepare for leadership and service in the educational ministry of the church.

Admission. Applications for admission to the Master of Religious Education program are evaluated by the same standards as those applicable to the Master of Divinity degree and admission requirements and procedures are also the same. Students planning to specialize in Christian Education should study the sections of this Bulletin which contain statements of policy regarding the most appropriate prerequisite studies for theological education and the procedures to be followed in applying for admission.

Requirements. The Master of Religious Education degree usually requires two years, or four semesters, of residence and study and the fulfillment of the following requirements:

1. Sixteen courses selected by the candidate in consultation with the Director of the program, or his representative, twelve of them limited electives and four free electives.

2. A final comprehensive examination.

3. Weekly conferences of candidates with the Director of the program or another resource person. These conferences are required in the first semester of the first year and are arranged in later semesters according to the student's interests and needs.



Program of Study for M.R.E. Degree

| Limited electives* | 12 |
|--|----|
| Two courses in the Biblical Division | |
| Two courses in the Historical Division | |
| Two courses in the Theological Division | |
| Two courses in the Ministerial Division | |
| (other than Christian Education) | |
| Four courses in Christian Education | |
| Free electives† | 3 |
| Cognate courses in another department† | 1 |
| | _ |
| | 16 |
| Weekly conferences of candidates (required in fall semester, first year) | |

Final Comprehensive Examination

*Limited electives may be completed through tutorials, if approved by the Director of the program and the instructor(s) involved, provided the total number of tutorials is ordinarily no more than 2.

†Free electives and cognate courses must be chosen by the student in consultation with the Director of the program and subject to the approval of the Director of Academic Affairs.

The Master of Theology Degree

The course of study leading to the degree of Master of Theology is designed for graduates of accredited theological schools who desire to continue or resume their theological education for enhancement of professional competence in selected areas of study. Enrollment in the Th.M. degree program is open to a limited number of students who have received the M.Div. (or the equivalent) with superior academic records.

Inquiries on admission may be addressed to the Director of Admissions for referral to the Director of the Th.M. program.

General Requirements. The general requirements for the degree of Master of Theology are:

1. Twenty-four semester hours of advanced studies, with an average grade

of B (3.0 average on a 4.0 scale).

2. Superior performance in a comprehensive examination covering the major area of study. As an alternative to the comprehensive examination the student may elect to do a research project in his major area if approved by the supervising professor. This project shall carry 3 s.h. credit, to be counted within the twenty-four hours required.

3. Residence for one academic year.

There are no general language requirements. However, classical or modern languages may be required for certain programs (for example, in Biblical studies, Hebrew or Greek may be required).

The Program of Study. At least twelve of the required twenty-four hours must be taken in one of the basic divisions of study (Biblical, historical, theological, or ministerial) which shall be designated as the candidate's major, and at least six hours in another of the divisions which shall be designated as the candidate's minor. No more than six semester hours of work completed in another accredited institution may be transferred and credited toward the degree. Ordinarily, no more than six hours may be taken through directed reading, and no more than three in any one semester. In the area of pastoral psychology, up to twelve hours may be taken through clinical pastoral education.

The comprehensive examination will be given at the close of the course of

study for the degree, ordinarily in May or September.

The entire program of studies and comprehensive examination should be completed within twelve months. In some cases, the time limit may be extended,

but in no case beyond three years.

The candidate majoring in pastoral psychology may plan one of three programs or concentrations: a concentration in pastoral theology relating psychology and theological understanding to professional ministry, especially the parish, through course work and supervised clinical experience; a concentration in pastoral care through course work and an intern year in Basic Clinical Pastoral Education; a concentration in pastoral counseling through course work and a year of Advanced Clinical Pastoral Education. In the context of clinical pastoral education various professional goals may be sought, including general understanding and skills in pastoral care and specialization in pastoral counseling and clinical supervision. The Clinical Pastoral Education Program is certified by the Association for Clinical Pastoral Education. Persons specializing in pastoral counseling will be moved toward certification with the American Association of Pastoral Counselors. Course PP 277A (or its equivalent) is considered a prerequisite for a major in pastoral psychology. (The four semester hours of credit are not applicable toward the twenty-four hours required for the degree, although the course will be indicated on the student's transcript). Accordingly, the student majoring in this area should ordinarily make provision for a program extending for a full calendar year beginning the first week in June.

Financial Aid. Candidates for the Th.M. degree are eligible for financial aid with the understanding that prior consideration is given to M.Div. candidates.

Please note in the pertinent sections of the chapter on Financial Information that the charges for tuition and general fee for the Th.M. degree are combined and are made on the basis of the number of semester hours taken, and that in order to be eligible for medical care a student must be taking at least seven hours.



Black Church Studies



Black people in America have benefited from significant contributions by many agencies and institutions; but none of these, nor all of them together, can equal the role which the Black Church has played in the struggle of Black people for freedom and dignity. The Black Church has been one of the few places—frequently the only place—where the hopes and aspirations of Black people could

be fully expressed and actualized.

Ignored or misrepresented by theologians and historians alike, Black Church Studies has emerged to illuminate Black religious experiences and to investigate the positive contributions which the Black Church has rendered—to the Black community in particular and to the broader aspects of American culture. Study in this area continues to search for the uniqueness of the Black Church, its ministry, and its constituency in order to discern the nature and function of the Church for Black people and to develop strategies and tactics for ministry and mission.

Black Church Studies at Duke Divinity School is an engagement of the theological seminary with the Black Church and the Black community. It reflects a new appreciation for the Black Church, and for the obligation of theological education to understand Black religious experiences and their significance for

ministering to the world in which we live.

Our curriculum in Black Church Studies is already being developed and staffed, and the list of current offerings may be found in this catalog in the section on Courses of Instruction. Dr. Joseph B. Bethea joined the staff in 1972 as Director of Black Church Studies; and in 1974, Dr. Herbert O. Edwards, a scholar in Black Church Studies, joined the faculty. In addition, faculty from other departments of the University complement our offerings, and associates in instruction are secured as need arises.

The Office of Black Church Studies offers counsel and advice to prospective Black seminarians in undergraduate schools. Since Black theological students are the raison d'être for the Black Church Studies program here, the Director of this program invites inquiries and offers assistance in planning a program of studies at Duke. The Director has responsibility, moreover, for advising students about field education placement, financial aid, adjustment needs, and a broad range of other student requirements. Further information concerning this program is available from Dr. Joseph B. Bethea, Director of Black Church Studies, Duke Divinity School, Durham, North Carolina, 27706.



Continuing Education



The Continuing Education Center

The establishment of a Continuing Education Center and the appointment of a Director of Continuing Education have enabled the Divinity School to offer expanded services of its faculty and facilities in continuing education for ministry. The Charles P. Bowles Continuing Education Center in the new wing of the Divinity School includes a seminar room and spacious study carrels for ministers involved in individual study or in-residence seminars. The Divinity School Library, the Henry Harrison Jordan Loan Library, the growing collection of tape recordings of sermons, lectures, and interviews, the Pickens Communications Center, and The Duke Divinity School Review are also available for continuing education for ministry. The Director and the Divinity School Committee on Continuing Education, in cooperation with church leaders throughout the region, provide a year-round program of in-residence seminars and conferences, extension seminars and consultations, and special services to ministers and churches in the vicinity.

Admission and Scholarships

Conferences, churches, and other supporting groups and institutions have made available through the Divinity School certain designated funds to assist in continuing education for ministry. Inquiries, applications for admission, and requests for continuing education scholarships for in-residence seminars and the Summer Institute for Ministry should be directed to the Director of Continuing Education, Duke Divinity School, Durham, North Carolina 27706.

In-Residence Seminars and Conferences

During the academic year 1974-75 the Divinity School has conducted a series of in-residence continuing education programs. Included were seminars and conferences on Evangelism in the Black Church; Consultation-Workshop on Continuing Education; Church and Seminary Planning for the Future in Christian Education; Young Pastors' Seminar; The Church of Small Membership—An Instrument for Ministry; Personal Growth Laboratory for Black Church Leaders; and Community, Worship, and Mission.

Extension Seminars and Consultations

Extension services in continuing education for ministry include a varied series of seminars, consultations, and conferences held in cooperation with district and conference continuing education committees and other church agencies in North and South Carolina and Virginia. These are led by members of the Divinity School faculty and visiting Church leaders. During 1974-75 these extension services included the Virginia and South Carolina seminars entitled Biblical Preaching Today; a semester-long Workshop in Preaching with Ft. Bragg Chaplains; preaching seminars in five districts of Western North Carolina; a Consultation on the Family and Changing Values and a seminar on The Holy Spirit at Lake Junaluska; a Marriage Enrichment Seminar at Brevard College; seminars on Alternative Futures in Christian Education and Community, Worship, and Mission, in Greensboro; a Lay-Clergy Dialogue at Lake Junaluska; and a series of consultations with churches of small membership.

The Convocation and Pastors' School

The annual Divinity School Convocation and North Carolina Pastors' School, a cooperative endeavor with the North Carolina and Western North Carolina Conferences of The United Methodist Church through the Board of Managers of the Pastors' School, brings ministers, lay persons, students, and faculty together for a series of lectures, sermons, and courses, along with alumni reunions and social occasions.

In the October 28-30, 1974 Convocation, Dr. Paul Ramsey, Professor of Religion, Princeton University, was Gray Lecturer; Dr. Colin M. Morris, General Secretary, The Methodist Missionary Society, London, was Hickman Lecturer; Bishop Earl G. Hunt, Jr. of the Charlotte Area and Bishop Robert M. Blackburn of the Raleigh Area were Convocation Preachers; and seven three-session mini-courses were conducted by members of the faculty and staff. A special feature was the forum on Women in Church and Ministry. The program also included alumni reunions and faculty guests.

Lectures and Symposia

The James A. Gray Lectures. The annual lectures, established in 1950 as part of a bequest made in 1947 by Mr. James A. Gray of Winston-Salem, North Carolina, are delivered in the context of the Divinity School Convocation and North Carolina Pastors' School. The 1974 Gray Lectures on "The Marriage of Christians" were delivered by Dr. Paul Ramsey, Harrington Spear Paine Professor of Religion, Princeton University.

The Franklin S. Hickman Lectureship. This lectureship was established in 1966 as part of a bequest by Mrs. Franklin S. Hickman in memory of her late husband, Dr. Franklin Simpson Hickman, Professor of Psychology of Religion, Duke Divinity School. This lectureship enables the Divinity School to bring practicing ministers of extraordinary qualities to lecture in the Convocation and Pastors' School and to participate in Divinity School classes, worship, and informal sessions with students and faculty. The 1974 Hickman Lecturer on Ministry was Dr. Colin Morris, General Secretary of The Methodist Missionary Society, London, whose topic was The Word and the World. The Very Reverend Edward H. Patey, Dean of Liverpool Cathedral and Hickman Lecturer in 1971, also returned in April, 1975 for lectures in the Divinity School and in preaching seminars in Raleigh and Greensboro.

Symposium on Christian Missions. Each year the Divinity School presents a symposium on the world mission of the Church, usually including campus visits by a secretary of missionary personnel and a Duke alumnus serving overseas. The general aims are "to inform students and faculty of the philosophy and work of missions as seen through the personal experience of speakers; to educate present and future ministers so that they will have a vital concern for the promotion of missionary education in the local church; and to evaluate the missionary enterprise as a significant force in the revolutionary world."

Other Divinity School Lectures. The Lecture Program Committee, chaired by the Director of Continuing Education, sponsors a series of public lectures throughout the academic year, for the Divinity School, the Duke University community, and the ministers, churches, and community of Durham. The Department of Religion also offers special lecturers for the academic community. Speakers and topics during 1974-75 included:

The Reverend Ewing W. Carroll, United Methodist missionary, to Hong

Kong, on "What in China Is Happening to the World?"

Dr. Martin Schmidt, Professor of Church History, University of Heidelberg, Germany, on "The Ecumenical Spirit and Importance of the Biblical Orientation of German Pietism, Especially in Relation to John Wesley."

Professor Michael E. Stone, of Hebrew University, Jerusalem, on "Judaism

in the Time of Christ.'

Dr. Hans-Martin Rumscheidt, Director of the Karl Barth Society of North America, Assistant Professor of Historical Theology, University of Windsor, Ontario, on "Karl Barth: 'Despiser' or 'Advocate' of Theology?"

Dr. L. Harold DeWolf, Emeritus Professor of Theology and Dean of Wesley

Theological Seminary, on "The Ethics of Criminal Justice."

Dr. James Luther Adams, Emeritus Professor of Christian Ethics at Harvard Divinity School, on "Root Metaphors of Biblical Thought and Social Change."

Dr. Roger L. Shinn, Acting President and Reinhold Niebuhr Professor of Social Ethics, Union Theological Seminary, New York, on "Theology

and Ethics in an Age of Scarcity."

The Very Reverend Edward H. Patey, Dean of Liverpool Cathedral, England, three lectures on "Community, Worship, and Mission."

Dr. C.K. Barrett, Professor of New Testament, University of Durham, England, on "The Contemporary Significance of St. John's Gospel."

Summer Institutes for Continuing Education

The Divinity School is offering three Summer Institutes in 1975:

1. For Campus Ministers, June 28-July 5. This institute will be co-sponsored with the Duke University Parish Ministry. There will be a lecture/discussion series with Dr. Donald W. Shriver, Professor of Ethics and Society, Candler School of Theology, Emory University, on "A Theological Perspective: Campus Ministry, Its Validity Today"; and Dr. Peter J. Gomes, Minister in Memorial Church and Plummer Professor of Morals, Harvard University, on "An Ethical Perspective: Confrontation and Resolution." There will be workshops on "An Educational Perspective: Learning Experiences in Campus Ministry," with Dr. John H. Westerhoff III, Associate Professor of Religion and Education; and supper discussions with Dean Thomas A. Langford, "On Being the Church in the University."

2. Summer Institute on Church Education, July 6-18. This institute will be

co-sponsored with The Christian Educators Fellowship and the Division of Lay Ministries of the Board of Higher Education and Ministry, The United Methodist Church, and will be for professional church educators and parish ministers. Courses offered will be: "Contemporary Biblical Interpretation and Its Implications for Church Education," with Dr. D. Moody Smith, Jr., Professor of New Testament Interpretation; "Theological Reflection, Contemporary Problems and Implications for Church Education," with Dr. McMurry S. Richey, Professor of Theology and Christian Nurture, and Dean Thomas A. Langford, Professor of Systematic Theology; and "Generation to Generation: Framing an Alternative Future for Education in the Church," with Dr. John H. Westerhoff III.

3. Summer Institute for Ministry, July 7-11, and 14-18. This institute will be for ministers, spouses, and lay church leaders. First week courses will be: "Family Dynamics and Financial Planning," with The Reverend O. Kelly Ingram, Professor of Parish Ministry, Professor Richard L. Scheef, Jr. of Eden Theological Seminary, and other resource leaders; "The Church and Planning," with Dr. Earl D. C. Brewer, Professor of Sociology and Religion, Candler School of Theology; and "Contemporary Preachers and Preaching," with The Reverend John K. Bergland, Associate Professor of Homiletics. Second week courses will be: "New Hope for Congregations," with The Reverend Loren B. Mead, Director of the Alban Institute, Washington; and a workshop on "Being Present to Preach," with Professor Bergland. Dr. McMurry S. Richey is Director.

Ministry in the Vicinity

Ministers and churches in and near Duke University are especially welcome to avail themselves of continuing education programs, facilities, and other services of the Divinity School and its faculty and students. They are invited to attend public lectures, visit with distinguished lecturers, participate in in-residence seminars and conferences, audit selected courses, study in the continuing education carrels, and use the resources of the Divinity School Library, the Henry Harrison Jordan Loan Library, and the tape recordings collection. Divinity School faculty, staff, and students are generally available for preaching, teaching, and other services in churches of the community and region.

The Course of Study School

In cooperation with the Department of Ministry of the Board of Education and the Southeastern Jurisdictional Conference of the United Methodist Church, Professor Paul A. Mickey directs the Course of Study School for pastors of the United Methodist Church. This school is in session for approximately four weeks each summer, and the required studies for one full year can be completed in this period. This is not a part of the regular work of the Divinity School degree program and no credit toward a seminary degree can be earned. The faculty includes representatives from the Divinity School and other church-related institutions. The twenty-seventh session of the Course of Study School is from June 23 to July 18, 1975.

The J.M. Ormond Center for Research Planning, and Development

In memory of the late Dr. J. M. Ormond, Professor of Practical Theology of the Duke Divinity School and Director of the Rural Church Program under

the Duke Endowment 1923-1948, the North Carolina Annual Conference established the J.M. Ormond Fund in 1951. This fund was a part of the special effort by the North Carolina and the Western North Carolina Conferences of the United Methodist Church to raise extra funds for the Divinity School. The Center is under the Director of Research, Professor Robert L. Wilson, and is jointly supported by the Ormond Fund and the program of the rural church under the Duke Endowment. The purpose of the Center, which is structured in cooperation with the two Annual Conferences, is to assist the church in performing its ministries. The Center utilizes the methodologies of the social sciences to provide research and planning services for congregations and denominational organizations.

The Henry Harrison Jordan Loan Library

Henry Harrison Jordan, distinguished member of the Western North Carolina Conference (1862-1931), was memorialized by his children in the establishment of an endowment in 1947. The Divinity School librarian is the custodian of books purchased under this fund for loan, through postal services, to qualified ministers of all denominations or localities. The Jordan Loan Library undertakes to maintain a catalogue of up-to-date publications representative of the several theological disciplines and areas of the minister's professional interest. Books may be borrowed by application to the librarian of the Divinity School.

The Duke Divinity School Review

Three times each year (autumn, winter, and spring) the Divinity School publishes a magazine designed to acquaint its readers with current theological thinking through the inclusion of public addresses given at the school, articles by faculty members and others, and book reviews. The Review is circulated free of charge to a mailing list of some 2,600, including alumni of the School, interested friends, campus ministers, teachers, administrators, and librarians. It is also available to students upon request.

Other Programs

Facilities for Advanced Study through the American Schools of Oriental Research. Duke University is one of the supporting members of the American Schools of Oriental Research. Accordingly, students in the Divinity School have the privilege of attending the Albright Institute of Archaeological Research in Jerusalem, the American Center of Oriental Research in Amman, and similar institutions without charge for tuition. They may also compete for the four fellowships offered annually by the Schools, the stipends depending upon available funds.

Programs in Pastoral Psychology. Programs in pastoral psychology beyond the studies incorporated in the M.Div. curriculum are provided in cooperation with the Duke University Medical Center. Four such special programs are available.

1. The Master of Theology degree with a major in pastoral psychology is ordinarily a calendar year program beginning the first full week in June. However, upon the recommendation of the staff, candidates with a quarter or more of clinical pastoral education may begin their program in September. The candidate may plan one of three programs or concentrations: a concentration in



pastoral theology relating psychology and theological understanding to professional ministry, especially the parish, through course work and supervised field or clinical experience; a concentration in pastoral care through course work and an intern year in basic clinical pastoral education; a concentration in pastoral counseling through course work and a year of advanced clinical pastoral education. In the context of clinical pastoral education various professional goals may be sought including general understanding and skills in pastoral care and specialization in pastoral counseling and clinical supervision. The program in clinical pastoral education is certified by the Association for Clinical Pastoral Education. Persons specializing in pastoral counseling will advance toward certification with the American Association of Pastoral Counselors. A quarter of clinical pastoral education (PP 277A or its equivalent) is considered a prerequisite for all programs. Degree candidates who extend their program over the calendar year receive three certified units of clinical pastoral education and nondegree candidates receive four certified units.

2. Single quarters of basic clinical pastoral education are offered to qualified candidates beginning the middle of January, running concurrently with the second semester in the Divinity School, and also beginning the first

Monday in June, running eleven weeks.

3. A one-year certificate or nondegree internship program in clinical pastoral education is available through the Duke Medical Center for persons who hold the Master of Divinity degree or its equivalent. Also, students who wish to pursue a pregraduation intern year are invited to apply, provided they have completed at least one year of theological education. The certificate, nondegree intern year can be done at any level of clinical pastoral education (basic, advanced, supervisory) for which the candidate and the supervisory staff judge him to be ready. These persons may enroll in the Divinity School as special students for a course or two each semester. Such training usually provides four quarters of certified clinical pastoral education credit.

4. A two-week clinic in pastoral care is provided each summer as part of the Divinity School's continuing education program for persons with the M.Div.

or equivalent degree.

For further information concerning any of these programs, write to Dr. Richard A. Goodling, Director, Programs in Pastoral Psychology, Duke Divinity School. See Master of Theology degree program.

Library Memorial Funds

The following memorial funds provide resources to enrich the collections of the Divinity Library.

Ormond Memorial Fund. Established in 1924 by Dr. J.M. Ormond, '02, and Mrs. Ormond, in memory of his mother and father, Mr. and Mrs. J. J. Ormond, the income from the Ormond Memorial Fund is to be used for the purpose of a collection of books on the rural church for the Divinity School Library at Duke University.

Avera Bible Fund. Established in 1895 by gift of Mrs. L. B. McCullers in memory of her husband, Willis H. Avera, the fund provides for the purchase of books for the Divinity School Library.

Louis W. Bailey Memorial Fund. This memorial fund was established in 1958 by the Reverend A. Purnell Bailey in memory of his father. The income is to be used for books for the Divinity School Library.

The William Arthur Kale, Jr. Memorial Fund. William Arthur Kale, Jr. was a member of the Duke University Class of 1958, a lover of sacred art and music, and a member of the University Chapel Choir. In his memory, there was established in 1964, by the provision of his parents, Professor and Mrs. William Arthur Kale, Sr., a fund for the purchase of books and other materials in the area of fine arts and religious musicology for the perpetual enrichment of the holdings of the Divinity School Library.

The Walter McGowan and Minnie Daniel Upchurch Fund. Established in 1971 by W. M. Upchurch, Jr., an alumnus of Duke University and a member of its Board of Trustees, the fund, honoring Mr. Upchurch's mother and father, is used for the purchase of materials in the area of sacred music and is supplementary to a collection of materials given by Mr. Upchurch to the Divinity School Library. This collection includes 1,487 anthems and other compositions of sacred music, along with sixty-two disc recordings of the Duke University Summer Chapel Choir for the years 1937-1941, at which time Mr. Upchurch was Director of the Choir.



Courses of Instruction



Course Enrollment

The required courses of the curriculum are: Old Testament 11, New Testament 18, Church History 13 and 14, American Christianity 28, Christian Theology 32, and Christian Ethics 33. Other courses numbered through 199 are elective courses for Divinity School students only. Most courses numbered 200 and above are approved for credit by both the Divinity School and the Graduate School. All of these courses require the permission of the instructor. For other prerequisites the student should consult the roster of courses of instruction in this *Bulletin* and should also refer to published Registration Advices at the time of registration for each semester.

Courses jointly approved by the Divinity School and the Graduate School of Duke University are published in the Bulletin of the Divinity School. Only those courses published in this Bulletin are approved for fulfillment of requirements for degrees offered by the Divinity School, except those authorized as cognate studies under the curriculum of this school.

Proposed Offerings, 1975-1976

The following courses are tentatively scheduled to be offered during the academic year 1975-1976. Consult the following pages for full descriptions.

Old Testament (OT): 11, 101, 106E, 115-116, 207, 220, 223D, 304, 307, 323B, 350, 351.

New Testament (NT): 18, 103-104, 116A, 116D, 118, 226B, 226E, 227A, 319.

Church History (CH): 13, 14, 139.

Historical Theology (HT): 114, 120, 123, 219, 241.

American Christianity (AC): 28, 385, 395, 396, 397.

Christian Theology (CT): 32, 108, 110, 215, 217, 226, 300, 303, 372.

Christianity and Culture (CC): 101, 102, 229.

Christian Ethics (CHE): 33, 113, 292, 383, 391, 392.

World Christianity and Ecumenics (WC): 156, 386.

History of Religions (HR): 180.

Black Church Studies (BCS): 100, 124, 126, 191.

Church and Ministry (CM): 9.

The Care of the Parish (CP): 151, 155A, 155D, 157, 189.

Worship and Church Music (CW): 34, 178, 182.

Pastoral Psychology (PP): 70, 170, 173, 175, 176B, 177, 180, 277B, 278, 281A, 281B, 282A, 282B.

Preaching (PR): 30, 180, 186, 203.

Christian Education (CED): 101, 105 106, 202, 218.

Bible

Knowledge of the content of the English Bible is regarded as indispensable for fulfillment of conditions for the basic theological degree. Provision for review of these materials will be integral to the Old and New Testament introductory courses.

I. Biblical Studies

OLD TESTAMENT

- 11. Introduction to Old Testament Interpretation. An introduction to the literature, history, and religion of ancient Israel with emphasis upon exegetical methodology. 4 s.h. Boiley and Murphy
- **101.** The Prophetic Movement. A study of the prophetic movement in Israel from the earliest period to the post-exilic development of apocalyptic with special reference to the content and religious teaching of the prophetic writings. 3 s.h. *Efird*
- 106. Exegesis of the English Old Testament. Prerequisite: OT 11 or equivalent.

106A. Genesis. Exegesis of the book of Genesis in English. 3 s.h. Boilev

106B. Amos ond Hoseo. Exegesis of Amos and Hosea in English. 3 s.h. Boilev

106D. Poetry of the Old Testoment. Exegesis of selected poetical passages of the Old Testament in English. 3 s.h. Murphy

106E. Old Testament Psolms. Exegesis of various literary types; theological orientation of Old Testament liturgical prayer; implications for prayer and liturgy today. 3 s.h. Murphy

- **109.** The Religion of the Old Testament. A study of the religious ideas contained in the Old Testament with special reference to their interpretation from Robertson Smith to the present. 3 s.h. *Efird*
- 115. Introduction to Biblical Hebrew. Elements of phonology, morphology, and syntax. Exercises in reading and writing Hebrew. 3 s.h. Bailey
- 116. Introduction to Biblical Hebrew and Hebrew Exegesis. Study of the weak verb; exegetical treatment of the book of Jonah. (Note: 115-116 are not credited separately.) 3 s.h. Boiley
- 130. Seminar on Death and Dying. Critical consideration of Biblical, legal, medical, and ethical perspectives. Prerequisites: OT 11; NT 18. 2 s.h. Bailey, H. Smith, ond Others
- **207.** Second Hebrew. Historical Hebrew grammar with reading and exegesis of Old Testament prose. (Pentateuch and historical books in alternate years.) First semester. 3 s.h. Wintermute
- 208. Second Hebrew. Historical Hebrew grammar and rapid reading of prose and poetry. Second semester. 3 s.h. Murphy
- **209.** Old Testament Theology. Studies of the Old Testament in regard to theological themes and content. Prerequisite: OT 11 or equivalent. 3 s.h. Murphy
 - 223. Exegesis of the Hebrew Old Testament. Prerequisite: OT 115-116.

- 223A. Amos and Hoseo. Interpretation based upon Hebrew exegesis, stress upon hermeneutical method. 3 s.h. Bailey
 - 223B. Job. Exegesis of the book of Job in Hebrew. 3 s.h. Murphy
- 223C. Exodus. Exegesis of the book of Exodus in Hebrew. 3 s.h. Boiley 223D. Song of Songs. Exegesis of the Song of Songs in Hebrew. 3 s.h. Murphy
- **237. History of the Ancient Near East.** Emphasis upon the religions, literature, and art of Mesopotamia. 3 s.h. *Boiley*
- **242.** Life After Death in Semitic Thought. Consideration of the various ideas from the early second millennium through the Intertestamental Period. Exegesis of selected Old Testament passages. Evaluation of recent research. Prerequisite: OT 11 or the equivalent. Knowledge of Hebrew helpful but not required. 3 s.h. *Boiley*
- **302.** Studies in the Intertestamental Literature. Selected documents of the Apocrypha and Pseudepigrapha examined exegetically and theologically in their relation to post-exilic Judaism. Prerequisite: permission of the instructor. 3 s.h. Stoff
- **304. Aramaic.** A study of the Aramaic portions of the Old Testament and selected passages from later Aramaic texts. 3 s.h. *Murphy*
- **304A.** Targumic Aramaic. A study of selected portions of the Targums of the Old Testament. 3 s.h. Meyers
- **306.** Language and Literature of the Dead Sea Scrolls. A study in interpretation. Prerequisite: a knowledge of Hebrew. 3 s.h. Wintermute
- **307.** Syriac. A study of the script and grammar, with readings from the Syriac New Testament and other early Christian documents. Some knowledge of Hebrew and Aramaic is a prerequisite. 3 s.h. Charlesworth
- **323A.** Comparative Semitics. An introduction to the morphology and syntax of classical Arabic and the Semitic languages of Mesopotamia together with a consideration of their relationship to Hebrew. 3 s.h. Wintermute
- **323B.** Comparative Semitics II. An introduction to the morphology and syntax of classical Ethiopic and the Semitic languages of Palestine-Syria together with a consideration of their relationship to Hebrew. 3 s.h. Wintermute
- **350, 351. Seminar in Old Testament.** Research and discussion on selected problems in the Old Testament and related fields. 3 s.h. Murphy
- **353. Seminar on Text Criticism.** Emphasis upon transmission, versions, apparatus, and method. Prerequisites: NT 103-104 and OT 115-116 or the equivalents. 3 s.h. Boiley ond Others
- **373-374. Elementary Akkadian.** Study of the elements of Akkadian grammar. Reading of Neo-Assyrian texts shedding light on the Old Testament. Prerequisite: Biblical Hebrew. 6 s.h. Boiley
- **375-376. Elementary** Ugaritic. Study of the elements of Ugaritic. Prerequisite: Biblical Hebrew. 6 s.h. Stoff

NEW TESTAMENT

18. Introduction to New Testament Interpretation. An introduction to the literature of the New Testament with special attention to the perspectives and methods of historical-critical investigation and interpretation. 4 s.h. *Efird* or *M*. Smith

- 103-104. Hellenistic Greek. Designed for beginners to enable them to read the Greek New Testament. (Two sections.) 6 s.h. Efird
- **105**. **Studies in Paul**. An investigation of Paul's apostolate based upon the Acts and the Epistles with attention to Paul's theology as reflected in selected passages. 3 s.h. *Efird*
- 114. Jesus in the Gospels. A consideration of the origins, transmission, and literary fixation of the Jesus traditions with special attention to the message of the kingdom, the problem of messianic self-consciousness, and the passion. 3 s.h. M. Smith
- 116. Exegesis of the English New Testament I. A. Luke-Acts; B. Galatians; C. The Pastoral Epistles; D. I and II Corinthians. (NT 116A, B, C, and D are separate courses offered in different semesters.) 3 s.h. Staff
- 117. Exegesis of the English New Testament II. A. The Gospel and Epistles of John; B. Romans; C. Revelation; D. Mark. (NT 117A, B, C, and D are separate courses, offered in different semesters.) 3 s.h. Staff
 - 118. The New Testament in Greek. Readings in the Gospels. 3 s.h. Staff
 - 119. The New Testament in Greek. Readings in the Epistles. 3 s.h. Staff
- **225.** Living Issues in New Testament Theology. Critical examination of major problems and issues in New Testament interpretation and theology. Prerequisite: 4 s.h. of NT or the equivalent. 3 s.h. *M. Smith*
- **226.** Exegesis of the Greek New Testament I. A. Mark and Matthew; B. Romans; D. I and II Corinthians; E. Gospel and Epistles of John. (NT 226A, B, D, and E are separate courses, offered in different semesters.) Prerequisite: NT 103-104. 3 s.h. J. L. Price, M. Smith, or F. W. Young
- **227.** Exegesis of the Greek New Testament II. A. Luke-Acts; B. Galatians; C. The Pastoral Epistles. (NT 227A, B, and C are separate courses, offered in different semesters.) Prerequisite: NT 103-104. 3 s.h. J. L. Price, M. Smith, or F. W. Young



- **258. Coptic.** Introduction to the Sahidic dialect with selected readings from Christian and Gnostic texts. Prerequisite: at least one year of Greek. 3 s.h. Wintermute
- **311.** Pharisaic Judaism in the First Century. A reading course in first-century Pharisaic Judaism. 3 s.h. Davies
- **312**. **Pauline Theology.** Studies in aspects of Paulinism in the light of recent scholarship. 3 s.h. *Davies*
- **314**. **Judaism and Christianity in the New Testament**. A study of their interaction. 3 s.h. *Davies*
- 319. The Gospel According to St. Matthew in Recent Research. $3\ \mathrm{s.h.}$ Davies
- **340**, **341**. **Seminar in the New Testament**. Research and discussion on a selected problem in the Biblical field. 3 s.h. *J. L. Price and M. Smith*
 - 345. The Epistle to the Hebrews in Recent Research. 3 s.h. Davies

II. Historical Studies

CHURCH HISTORY

- 13. History of the Church to the Protestant Reformation. A survey through the fifteenth century in terms of spiritual genius, organizational development, great literature, and representative movements. 3 s.h. Gregg
- **14.** History of Modern European Christianity. A survey of the main currents in Reformation and post-Reformation church history. 3 s.h. Steinmetz and Raitt
- 105. Studies in Patristic Christianity. Selected issues in the worship, theology, and politics of the early Church. 3 s.h. Gregg
- **126.** The English Reformation. The religious history of England from the accession of Henry VIII to the death of Elizabeth I. Extensive readings in the English reformers from Tyndale to Hooker. 3 s.h. Steinmetz
- 139. Methodism. A study of Methodist societies in England and the developing church in America as they gave rise to such historic issues as polity, education, division, and reunion. Prerequisite: CH 13-14. 3 s.h. Baker
- **140.** The Rise of Methodism and the Anglican Background. The Methodist societies within the Church of England to the death of Wesley. Prerequisite: CH 13-14. 3 s.h. Baker

(Students are advised that either CH 139 or CH 140 will satisfy the United Methodist Discipline Requirement No. 344.)

- 141. The Classic Age of the English Hymn. See CW 141.
- 145. The Later Reformation and the Rise of Protestant Orthodoxy. Problems in Protestant theology before Kant. Extensive readings in the classic dogmaticians of the Lutheran and Reformed traditions. 3 s.h. Raitt
- **201. Schism and Heresy in Early Christianity.** Studies of crises precipitated by movements such as Gnosticism, Donatism, Arianism, and Pelagianism. 3 s.h. Gregg
- **202. Religion of the Cappadocian Fathers.** Examination of the careers and writings of Basil, Gregory of Nyssa, and Gregory of Nazianzus. 3 s.h. Grego

- 206. Christian Mysticism in the Middle Ages. Source studies, in historical perspective of such late medieval mystics as Bernard of Clairvaux, the Victorines, Ramon Lull, Meister Eckhart, Richard Rolle, Catherine of Siena, and Nicholas of Cusa. Prerequisite: CH 13. 3 s.h. Staff
- **236.** Luther and the Reformation in Germany. The theology of Martin Luther in the context of competing visions of reform. 3 s.h. Steinmetz
- **247.** Readings in Latin Theological Literature. Critical translation and study of important theological texts in Latin from various periods of the history of the Church. 3 s.h. Steinmetz
- **334.** Theology and Reform in the Later Middle Ages. Examination of selected issues in the life and thought of the medieval Church from the twelfth century through the fifteenth century. Readings in popular and academic theologians from Pierre Abelard to Gabriel Biel. 3 s.h. Steinmetz
- **335.** The English Church in the Eighteenth Century. Studies of Christianity in England from the Act of Toleration, 1689, to the death of John Wesley, 1791. 3 s.h. *Baker*
- 339. The Radical Reformation. Protestant movements of dissent in the sixteenth century. Special attention will be devoted to Müntzer, Carlstadt, Hubmaier, Schwenckfeld, Denck, Marpeck Socinus, and Menno Simons. 3 s.h. Steinmetz
- 344. Zwingli and the Origins of Reformed Theology. Source studies in the early Reformed tradition. 3 s.h. Steinmetz

HISTORICAL THEOLOGY

- 114. Christologies of the Early Church. Investigation of important soteriologies and debates centering upon the person of Christ from the second through the fifth centuries. 3 s.h. Gregg
- **120.** Christian Thought in the Middle Ages. A survey of the history of Christian theology from St. Augustine to the young Martin Luther. 3 s.h. Steinmetz
- **121.** Readings in Sacramental Theology. The sacraments in the history of Christian thought. 3 s.h. Raitt
- **123. Readings in Historical Theology.** In-depth studies of representative figures of the early and medieval Church, such as Clement of Alexandria, Irenaeus, Cyprian, Boethius, Anselm, Bonaventure, Thomas Aquinas, or others. Prerequisite: CH 13-14. 3 s.h. Staff
- 125-126. Introduction to Ecclesiastical Latin. A study of grammar and sight reading of Classical, Medieval, and Renaissance Latin texts. Offered by the Department of Classical Studies. (For further information see Dr. Steinmetz.) 4 s.h. (2 s.h. each semester). Newton or Staff
- 136. Theology of St. Thomas Aquinas. An examination of major theological themes in the Summa Theologica. 3 s.h. Raitt
- 141. Women, Religion, and Theology. An historical study of fundamental religious perceptions and theological interpretations of woman. 3 s.h. Raitt
- 204. Origen. The systematic and apologetic writings of an important Alexandrian thinker and exegete of the third century. 3 s.h. Gregg

- **219. Augustine.** The religion of the Bishop of Hippo in the setting of late antiquity. 3 s.h. Gregg
- **241. Problems in Reformation Theology.** Prerequisite: permission of the instructor. 3 s.h. Steinmetz
- **246. Problems in Historical Theology.** Prerequisite: permission of the instructor. 3 s.h. *Raitt*
- **251.** The Counter-Reformation and the Development of Catholic Dogma. Issues in Roman Catholic theology from the Reformation to the Second Vatican Council. 3 s.h. *Raitt*
- **260**. Life and Thought of the Wesleys. A seminar on John and Charles Wesley and their colleagues in relation to English culture and religion in the eighteenth century. Prerequisite: permission of the instructor. 3 s.h. Baker
- **261**. The Theology of John Wesley. A study of the development and structure of Wesley's theology with special reference to his doctrines of man and salvation. 3 s.h. *Richey*
- **308. Greek Patristic Texts.** Critical translation and study of selected Greek texts illustrative of significant aspects of patristic theology and history from the second through the fifth century A.D. Prerequisite: permission of the instructor. 3 s.h. *F. W. Young*
- **313. The Apostolic Fathers.** A study of the religious thought in the writings of the Apostolic Fathers. 3 s.h. F. W. Young
- **317. Seminar in the Greek Apologists.** A study of the apologetic writings of the Greek Fathers in relation to the challenges of their contemporary world. Special attention will be given to leading protagonists of late Graeco-Roman culture, such as Celsus, Porphyry, Julian, et al. 3 s.h. F. W. Young
- **318. Seminar in the Greek Fathers.** A study of selected topics from the Greek Fathers. 3 s.h. F. W. Young
- 338. Calvin and the Reformation in Switzerland. The theological development of John Calvin. A comprehensive examination of his mature position with constant reference to the theology of the other reformers. 3 s.h. Raitt

AMERICAN CHRISTIANITY

- **28. History of American Christianity.** A consideration of the nature of Christianity in America and the history of its development. 3 s.h. *Henry*
- 199. The American Social Gospel. A study of Protestant social thought and action in America since 1865. 3 s.h. Henry
- **296. Religion on the American Frontier.** A study of the spread of evangelical Christianity as a theological and cultural phenomenon of the American West. 3 s.h. Henry
- 377. Contemporary American Theater and Evolving Theological Forms. An examination of creed and ritual implicit and explicit in contemporary American theater of stage, film, and television. 3 s.h. Henry
- 384. Religious Dissent in American Culture. History and significance of dissent in the theology and culture of America. 3 s.h. Henry
- **385.** Religion in American Literature. A critical study of the meaning and value of religious motifs reflected in American literature. 3 s.h. Henry

- **395.** Christian Thought in Colonial America. Exposition of the main currents in Protestant theology. 3 s.h. Henry
- **396.** Liberal Traditions in American Theology. A study of the main types of modern religious thought, beginning with the theology of the Enlightenment. 3 s.h. Henry
- **397.** Contemporary American Theology. A critical appraisal of major tendencies. 3 s.h. Henry

HISTORY OF RELIGIONS

180. Introduction to Asian Religions. Preliminary consideration of problems and methods in the study of religious traditions, followed by a survey of the historical development, beliefs, practices, and contemporary significance of the Islamic religion and the religions of India, China, and Japan. 3 s.h. Staff (Department of Religion)

III. Theological Studies

CHRISTIAN THEOLOGY

- **32.** Christian Theology. The major themes of the theology of the Church. 4 s.h. Cushman, Herzog, and Langford
- 100. Introduction to Black Theology. A critical analysis of the recent rise of Black consciousness in America and its significance in the theological preparation of the Christian ministry. (See Black Church Studies 100.) 3 s.h. Staff
- **108. Major Types of Protestant Theology.** A survey of Protestant theology from the Reformers to Karl Barth. (For juniors only.) 3 s.h. Cushman, Herzog, or Langford
- **110.** This Life and the Age to Come. Christian eschatology and the meaning of history in the light of God's triumph over sin, suffering, and death. 3 s.h. Robinson
- **200.** The Person and Work of Christ. The problem of knowledge of Christ and formulation of a doctrine of his work and person in the light of Biblical eschatology. Prerequisite: CT 32. 3 s.h. Cushman
- **210.** Contemporary British Theology. Selected problems in representative British theological writings after 1900. 3 s.h. Langford
- 211. Authority in Theology. The idea and function of authority in theology. 3 s.h. Langford
- 212. The Doctrine of the Holy Spirit. A study of the person and work of the Holy Spirit. 3 s.h. Langford
- **214.** The Christian Doctrine of Salvation. Systematic exposition and restatement of the historic faith of the Church in relation to representative secular alternatives of ancient and modern times. Prerequisite: CT 32 or equivalent. 3 s.h. Cushman
- **215.** The Nature and Mission of the Church. Christian understandings of the church, Biblical, historical, contemporary, with a view toward ecumenical doctrinal construction. 3 s.h. Herzog

- **216.** Kierkegaard Studies. Critical examination of selected works. 3 s.h. Robinson
- **217**. **Theological Explorations**. A seminar on contemporary theological issues, content to be designated by the Theological Division. 3 s.h. Staff
- **224.** Conceptions of Man in Western Thought. An analysis and interpretation of important types of philosophical and theological theory. 3 s.h. Richey
- 225. The Christian Understanding of Man. Representative historical and recent theological interpretations of man's nature, predicament, deliverance, and possibility. 3 s.h. Richey
- **226.** Theology and Contemporary Secular Understandings of Man. Critical theological examination of selected current interpretations of human nature and the human situation. 3 s.h. *Richey*
- **300.** Systematic Theology. Method and structure of systematic theology, the doctrine of God, theological anthropology, and Christology. Prerequisite: CT 32 or equivalent. 3 s.h. Cushman, Herzog, and Langford
- **303.** The New Hermeneutic and the Idea of History. A critical examination of key thinkers in present-day European systematic theology (Fuchs, Ebeling, Moltmann, Ott, and Pannenberg) in the light of Ernest Bloch's philosophy. Prerequisite: CT 32. 3 s.h. Cushman and Herzog
- **320. Hegel and Schleiermacher.** A study of two founders of modern Protestant thought. 3 s.h. Herzog
- **322. Nineteenth Century European Theology.** Protestant theology from Kant to Herrmann. 3 s.h. Herzog
- **325.** Philosophical Theology. Theology, as the knowledge of God, considered in dialogue with selected pagan and Christian philosophers from Plato to Kant. Prerequisite: CT 32 or equivalent. 3 s.h. Cushman
- **326.** Philosophical Theology II. Main problems of philosophical theology in the modern period. Prerequisite: CT 325 or permission of instructor. 3 s.h. Cushman
- **328.** Twentieth Century European Theology. Critical examination of the thought of selected Protestant theologians from 1900 to 1950. Prerequisite: CT 32. 3 s.h. Cushman and Herzog
- **352. Seminar in Christian Theology.** Research and discussion of a selected problem in the systematic field. 3 s.h. *Staff*
- **372.** Theology of Paul Tillich. An examination of Tillich's philosophical theology. 3 s.h. Robinson

CHRISTIANITY AND CULTURE

- 101. Types of Religious Philosophy. Basic historical orientation of religious thought, especially in Western culture. 3 s.h. Robinson
- **102.** Science and Biblical Theism. Presuppositions, method, and content of scientific knowledge in physics and biology in relation to creation and providence. 3 s.h. Robinson
- **229.** Tragedy and Christian Faith. An analytical and constructive philosophical interpretation of the fundamental tragic dimensions of human life in the light of a Christian theological understanding. 3 s.h. Robinson

CHRISTIAN ETHICS

All courses in Christian Ethics numbered 200 or above require a prerequisite of CHE 33 or permission of the instructor; 300-level courses require permission of the instructor.

- 33. Christian Ethics. Theological assumptions, ethical principles, and their application to contemporary issues of Christian social policy. 3 s.h. Beach, Lacy, and H. Smith
- 107. The Biblical Bases of Christian Ethics. Examination of major themes and moral teachings principally in the Decalogue, the Gospels, and the Epistles, with application to some contemporary issues. Prerequisite: OT 11, NT 18, or equivalent, 3 s.h. *H*. Smith
- 113. Contemporary Issues in Christian Morals. Constructive examination of selected areas of public and private morality. 3 s.h. Beach or H. Smith
- 115. Christian Social Action in the Local Church. Christian ethical principles, resources, procedures, and programs for pastoral leadership in parish social action. 2 s.h. H. Smith
- **122. Moral Theology in the Nineteenth Century.** Critical and comparative examination of ethical theory as exhibited in the work of representative theologians. 3 s.h. *H.* Smith
- 130. Seminar on Death and Dying. Critical consideration of Biblical, legal, medical, and ethical perspectives. (Also listed as Biblical Studies 130.) Prerequisites: OT 11, NT 18, 2 s.h. H. Smith, Bailey, and Others
- 194. The Protestant Church and American Culture. Analysis from the perspective of Christian ethics of current problems in the interpenetration of church and culture with explicit reference to the parish setting. 3 s.h. H. Smith
- **243-244.** Interdisciplinary Seminar in Medical-Legal-Ethical Issues. A seminar composed of students and faculty from the Medical, Law, and Divinity Schools for critical consideration of selected pertinent issues of mutual professional interest. 3 s.h. H. Smith and Others
- **245.** Ethics in World Religions. Moral foundations, assumptions, and applications in such historic faiths as Hinduism, Buddhism, Confucianism, and Islam, in the light of Christian ethical perspectives. 3 s.h. *Lacy*
- **262.** Marxist Ideology and Christian Faith. Comparative examination of Communist and Christian doctrines such as man, society, sin, history, and eschatology together with an introduction to the contemporary dialogue. 3 s.h. *Lacy*
- **292.** Christian Ethics and International Relations. An examination of Christian attitudes toward such issues as war and peace, the rule of law, foreign aid, and human rights; and the Church's contribution to international policies and institutions. 3 s.h. *Lacy*
- **383.** Moral Theology in the Twentieth Century. Critical and comparative examination of ethical theory as exhibited in the work of selected contemporary theologians. 3 s.h. *H. Smith*
- **388. Ethics and Medicine.** A critical study of selected aspects of modern biomedical technology with special reference to the ethical assumptions informing their development and practice. 3 s.h. *H. Smith*
 - 389. Christian Ethics and Contemporary Culture. A study of the inter-

action between Christian thought and current secular social theory. Prerequisite: permission of the instructor. 3 s.h. Beach

- **390.** Current Problems in Christian Ethical Theory. A critical study of dominant issues in Christian ethics: such as community, conscience, contextualism, power, and technology. 3 s.h. Beach
- **391. Historical Types of Christian Ethics I.** A critical study of representative statements of Christian ethical theory through the early Reformation. 3 s.h. *Beach*
- 392. Historical Types of Christian Ethics II. A continuation of CHE 391, from the Reformation through current Christian ethical theory. 3 s.h. Beach
- **394.** Christianity and the State. The relation of the Christian theory of the state to political problems with special consideration of the religious assumptions underlying democratic theory and practice, and of the relationship of the Church to the state. 3 s.h. Beach

WORLD CHRISTIANITY AND ECUMENICS

- 24. The Christian World Mission. A study of theological foundations, guiding principles, and contemporary problems of the world Christian community. 3 s.h. Lacy
- 133. The Expansion of Christianity. A survey of the spread of Christianity and the growth of the Church with special emphasis on nineteenth and twentieth century Protestantism in the non-Western world. 3 s.h. Lacy
- 135. Contemporary Issues in the World Church. Analysis of political, social, cultural, and religious conditions in a selected area of the world, and of theological-ethical insights and perspectives within the indigenous Christian community. 3 s.h. *Lacy*
- 156. The Ecumenical Movement. Its contemporary development, structures, activities, and problems, against the background of Church unity and disunity. 3 s.h. Lacy
- 386. Seminar: Christianity in Dialogue with Other Faiths. Contemporary currents of Christian thought as they relate to resurgent non-Christian religions and involve new formulations of a theology of mission. 3 s.h. Lacy

BLACK CHURCH STUDIES

- 100. Introduction to Black Theology. An examination of the historical roots of Black theology with special attention to the treatments of traditional themes and problems in theology by Black theologians and their rationale for the Black theological enterprise. (Previously listed as CT 100.) 3 s.h. Edwards
- 124. The Black Church in America. A consideration of the historical and theological development of the separate Black Christian denominations in America with attention to some of the major leaders, Black worship, and Black preaching. 3 s.h. Edwards
- 126. Black Religion and Social Conflicts in America. An examination of some of the reactions of Black religious groups to the limits placed upon Black people in American life, efforts made to break down racial barriers in society, and attempts to institutionalize Black responses to such barriers. 3 s.h. Edwards

191. The Church and Power. The relationship of the institutional Church to other groups in the community which exercise power. 3 s.h. *Edwards*

IV. Ministerial Studies

THE CARE OF THE PARISH

- **9.** Church and Ministry I. Contemporary views of the nature and normative function of the Church in modern society and some implied conceptions of the ministry. (Course offered in three sections.) 2 s.h. Beach, Cousin, and Langford
- 10. Church and Ministry II. Exposure to and reflections upon various contexts of present-day Christian ministry with a view to integration of contexts with the work of the Church, its nature, and appropriate styles of ministry. 3 s.h. Goodling or Mickey
- **128.** An Organization Development Approach to Church Administration. A study of the pastor's role as participant-facilitator with attention to organizational theory and facilitative skills employing the group workshop method of learning. 3 s.h. Ingram
- 129. The Pastor as Consultant to Church Organization. A consideration of the pastor's role as organizational consultant with special emphasis on data gathering, diagnosis, and intervention using experiential learning designs. 3 s.h. Ingram
- 146. Church Building. The role of the pastor in planning and executing building programs in the local church: architectural consideration and counsel, building requirements, and plans. 2 s.h. Nesbitt
- **148.** Christian Stewardship and Church Finance. A seminar to consider the principles of stewardship education, budget-making, enlistment in church support. 2 s.h. Ingram
- **150.** Church and Community. The structure and dynamic factors shaping the present-day community together with their import for the work of the Church. 2 s.h. *Wilson*
- **151. The Town and Country Church.** The small church, the circuit church, circuit administration, larger parish and group ministry, and the Town and Country movement. 2 s.h. Nesbitt
- **152. Evangelism and the Local Church.** A study of the nature, purposes, and methods of contemporary Christian evangelism with special attention to the local church. 3 s.h. *Ingram*
- **153.** Comparative Polity and Ecumenics. A study of selected examples of church polity as represented in the Catholic and Protestant traditions in relation to present-day developments. 3 s.h. Ingram
- **154.** The Urban Church. The function, nature, program, and administration of the effective city church and of the urban minister's distinctive task. 2 s.h. *Wilson*

155. A, B, C, D. Church Polity.

A. The United Methodist Church. A study of the history of Methodist government and contemporary polity. 3 s.h. Ingram

B. The Baptist Churches. 2 s.h.

C. The United Church of Christ. 2 s.h.

D. The Presbyterian Churches. 2 s.h.

- 157. The Church and Social Change. A sociological study of the relationship of the church to the process of social change, including the role of the church as innovator, the church as participant in social movements, method(s) of accomplishing change, and the religious leader as an agent of social change. 3 s.h. Wilson
- 159. The Church and Extremism. A study of extremist groups, including their ideology, activities, and methods of operation. Particular attention will be given to ways by which the congregation and clergyman can deal with such organizations in the local community. 2 s.h. Wilson
- 179. A, B. Seminar on Church Research. Methods of research and survey for the gathering, analysis, and interpretation of church and community data, together with preparation and use of denominational statistics. 3 s.h. Wilson
- **189.** The Multiple Staff Ministry. Group work, leadership, and organizational theories as applied to staff ministries in large church and cooperative parish settings. 3 s.h. Ingram
- **220.** Seminar in Contemporary Ministries. A seminar in patterns and issues of contemporary ministries, content to be designated by the Ministerial Division. 3 s.h. Staff

CHRISTIAN EDUCATION

- **101. Faith and Nurture.** Foundations in theology and educational theory for the teaching ministry of the Christian community. 3 s.h. *Richey*
- 102. New Forms of Education in the Church. An introductory course in religious education aimed at providing a basis for planning an alternative future for education in the church. Especially designed for those preparing for the parish ministry. 3 s.h. Westerhoff
- 105. The Church as a Learning Community. A basic introductory course on the nature of religious communities and the means by which they evolve, sustain, and transmit faith, values, and life-styles—with implications for planning and designing intentional learning experiences within the total life of Christian faith communities. (Open to area clergy and laity.) 3 s.h. Westerhoff
- **106.** Educational Ministries in the Church. Planning, designing, and facilitating educational experience in faith communities. (Prerequisite: CED 105 or equivalent.) 3 s.h. Westerhoff
- 167. Theology and the Laity. A study of contemporary lay movements and centers, the ministry and mission of the laity in Church and world, and the ministry of teaching in the lay renewal of the Church. 3 s.h. Richey
- 168. Confluent Education and Value Clarification. A workshop course to introduce and critically examine two forms of humanistic education and evaluate their viability for use in the church with children, youth, and adults. Also aimed at the personal growth and development of participants. 3 s.h. Westerhoff
- **169. Major Issues in Christian Education.** Critical examination of selected issues in Christian Education. 3 s.h. Richey
- 175. Teaching in the Church. A practicum for developing teaching/learning strategies with children, youth, and adults. 3 s.h. Westerhoff
 - 185. Religious Education and the Arts. The place of the affect and imagina-

tion in religion and education, and the use of the arts in religious education. 3 s.h. Westerhoff

- **202.** Foundations for Religious Education. A Colloquium. Integrating the theological disciplines (Biblical, historical, theological, and ethical) and religious education. 3 s.h. Westerhoff ond Others
- **205.** Colloquium in Religious Education. A workshop focusing on current trends in education and theology and their implications for education in the church. 3 s.h. Westerhoff
- **214.** Religion and Higher Education. A seminar for those preparing for campus ministries and the teaching of religion in colleges and universities on selected topics related to religion in higher education. Prerequisite: permission of the instructor. 3 s.h. Westerhoff
- **218.** Research Seminar in Religion and Education. Various research techniques applied to issues in religion and education. Prerequisite: permission of the instructor. 3 s.h. Westerhoff
- **222. Issues in Theology and Christian Education.** A seminar in selected theological issues such as the doctrine of man or revelation and their implications for education. Prerequisite: permission of the instructor. 3 s.h. Richey

The following are graduate courses in the University Department of Education which are especially recommended for cognate work.

- 206. Studies in the History of Educational Philosophy
- 217. Psychological Principles of Education
- 221. Program in Early Childhood Education
- 222. New Developments in Educational Curriculum
- 249. Exceptional Children
- 260. Introduction to Educational Research
- 343. History of Higher Education

PASTORAL PSYCHOLOGY

- **70. Group Process and Personal Identity.** A small group experience to enhance personal growth and explore personal identity and interpersonal styles of relating. 2 s.h. Stoff
- **170. Pastoral Conversation.** A consideration of the nature of the pastor's conversation with people in his total caring ministry grounded in the personcentered understanding of personality processes and human relationships, using textual and conversational materials. 3 s.h. Goodling
- 171. Pastoral Counseling. Consideration of the structures and processes of pastoral counseling; pastoral evaluation, referral, intake, contract, goals, transference, termination, and other special problems. Prerequisite: permission of instructor. 3 s.h. Goodling
- 172. Pastoral Care in Marriage and Family Life. Pastoral care in marriage and family life with special emphasis on premarital guidance within the context of the local church's program of family life education. 3 s.h. Goodling
- **173. Psychotherapy and Sanctification.** An analysis of structuring and growth processes in psychotherapy in the light of a Christian understanding of sanctification. 3 s.h. *Mickey*
 - 174. Religion and Personality Processes. Psychological and religious

interpretation of man's basic experiences; personality factors in religious development; psycho-dynamic meanings and uses of religious beliefs and practices. 3 s.h. Goodling or Mickey

- 175. Pastoral Care Ministries in Critical Human Situations. A seminar utilizing lectures by visiting professionals, case materials, resource films and readings, to inform ministers on the causal factors, behavioral patterns, preventive and treatment programs, and the role of the church and minister in such problems as alcoholism, drug addiction, dying and death, juvenile offenses, marital crisis, suicide, mental retardation, sexual deviation, psychiatric disorders. 3 s.h. Goodling
- 175A. Special Practicum Projects. For advanced students who want additional clinical experience under supervision in a pastoral care setting (innercity; alcoholic rehabilitation; counseling, etc.). Staff
- *176. A, B, C, D. Pastoral Care and Persons in Institutions. A. Lectures by staff and ward visits at the Dorothea Dix State Hospital in Raleigh (and related facilities: Alcoholic Rehabilitation). 3 s.h. Staff

B. Lectures by staff and ward visits at the Murdoch Center for the Mentally Retarded and other facilities in the Butner, North Carolina, complex (State Hospital, Alcoholic Rehabilitation, Training School). 3 s.h. Staff

C. Lectures by staff and ward visits at the Central Prison in Raleigh and re-

lated correctional facilities. 3 s.h. Staff

- D. The Church's ministry to the elderly and homebound explored through lectures, case conferences, and visits to the elderly and homebound parishioners of local Durham churches. 3 s.h. Goodling
- *177. Pastoral Care in the General Hospital Setting. An examination, through intensive individual and group supervision, of the student's pastoral ministry to the ill, the dying, and the bereaved in the general hospital setting. Prerequisite: PP 170. 3 s.h. Staff
- 178. Power and Restraint in the Parish. An analysis of psychopolitical dynamics of the local church. Verbatim materials from the student's church work will be utilized in the course. 3 s.h. *Mickey*
- **271.** Marriage and Family. The psychodynamics of marital conflict and family problems; principles and procedures in marriage and family counseling. (For seniors and Th.M. candidates.) 3 s.h. Detwiler
- **273. Problems of Methodology in Pastoral Theology.** An investigation of problems in relating materials from theology and personality disciplines as they are found in pastoral theology, with a view toward the development of a consistent methodology. (A research seminar: open to seniors and Th.M. students, by permission of the instructor.) 3 s.h. *Mickey*
- **274. Research Problems in Pastoral Psychology.** Research methods and areas of investigation in pastoral psychology. 2 s.h. *Goodling*
- **275. Individual Study in Pastoral Psychology.** Selected readings in major issues in pastoral psychology issuing in a research or honors paper. 2 s.h. Staff

^{*}The Pastoral Psychology Staff suggests that a student elect no more than one of the institutional courses (176A, B, C, D, or 177). Students interested in institutional training beyond one such course are encouraged to apply for a CPE quarter.

- **277**. **A**, **B**, **C**. **Clinical Pastoral Education**. Clinical pastoral education (CPE) in accredited training centers.
 - A. Summer quarter of CPE. 4 s.h.
 - B. Fall semester of CPE. 4 s.h.
 - C. Spring semester of CPE. 4 s.h.
- **278.** Psychological Theories of Personality. A systematic presentation of leading personality theories, with reference to developmental processes (motivation, cognition, learning, etc.) and their implications for Christian ministry. 3 s.h. *Mickey*
- **279.** The Caring Ministry of the Laity Through Personal Groups. Personal experience in a group counseling process to develop a methodology for training lay leadership in the ministry of pastoral care through group experience. 2 s.h. Goodling
- **281.** A, B. Pastoral Counseling Practicum. Individual and group supervision of several types of pastoral counseling with people in different crisis and growth situations. The student will be working part time as a minister of counseling in a local church situation. Prerequisite: permission of the instructor. 8 s.h. Staff
- **282.** A, B. Pastoral Psychology Literature Seminar. Critical and constructive reviews of pertinent literature in the field for Th.M. students only. A full-year course. 2 s.h. Goodling or Mickey

PREACHING

- 30. Theory and Practice of Preaching. The development of a theory of preaching and methods of sermon construction, including clinical experience in preaching sessions and local church settings. 3 s.h. Staff
- 180. From Text to Sermon. Preaching from Biblical sources. Emphasis upon the goal and methodology of exegesis, the hermeneutic problem, and verbal communication in the present. Prerequisite: OT 11 (NT 18) or equivalent. $3 \, \text{s.h.}$ Staff
- **181.** Advanced Sermon Analysis Seminar. A critical study, on the basis of selected sermons and student presentations, of principal and practical problems facing the contemporary preacher. 3 s.h. Bergland and Others
- 183. Preaching in the Black Community. A study of the style and content of Black preaching with attention to the unique roles of Black preachers in society. An analysis of the essential characteristics of preaching in the Black church. 3 s.h. Staff
- 185. Preaching Values in Non-Biblical Sources. A critical examination of select samples of contemporary drama, poetry, and fiction, for homiletical purposes. 3 s.h. Staff
- **186.** Twentieth Century Preaching. A study of contemporary preaching based on printed, recorded, audio-, and video-taped sermons of leading homileticians of our age. 3 s.h. Staff
- **187.** Pre-Reformation Preaching. Sermons, handbooks, and other historical sources studied in relation to Biblical preaching and the liturgical church, the problem of popular ministry and the issues of Christian reform. Prerequisite: CH 13. 3 s.h. Staff
 - 188. Post-Reformation Preaching. A study of the theological trends and

significant personalities in the preaching tradition from the sixteenth century to the present. 3 s.h. Staff

- 189. Preaching in Context. An analysis of preaching in the context of worship with consideration of the church and liturgical year, ecclesiastical environment, and the contemporary situation. 3 s.h. Bergland
- **193.** Theology and Preaching. An examination of the relation of systematic theology and homiletical presentation. 3 s.h. Staff
- 196. Preaching in the Parish. A consideration of preaching in relationship to pastoral duties and the total task of ministry with attention to week-by-week preaching in the parish setting. Some attention will be given to funerals and crisis situations. 3 s.h. Bergland
- **203**. **Dialogical Preaching**. An examination of the relationship of preacher and congregation in the preaching event for seniors. 2 s.h. *Marney*

WORSHIP AND CHURCH MUSIC

- **34.** Workshop in Communication. Intensive drill in voice, diction, speaking, and reading. Enrollment by recommendation by teaching faculty. 1 s.h. Rudin
- 134. Liturgical Reading. Practice in reading the liturgical materials of the pastoral ministry: Scriptures, prayers, and the rites and services in the Methodist Book of Worship. 2 s.h. Rudin
- 141. The Classic Age of the English Hymn. Eighteenth century development of the English hymn with special reference to Watts and the Wesleys, their precursors and successors. 2 s.h. Baker
- 167. The Sacramental Celebrations. Study of the sacraments in the context of the Gospel Year and the rites of passage celebrating birth, adolescence, maturity, and death. Practice in leadership, using the resources of the Communication Center. 3 s.h. Rudin
- 178. Corporate Worship. Study of the liturgical life of the church celebrated in sacraments, worship, and the church year. Field experiences and vocational application of theory. 3 s.h. Rudin



- 180. Church Music. A two-fold study including: (1) a survey of the great monuments of church music; (2) musicianship, songleading, and basic conducting with an emphasis upon the selection and use of hymns and other music from the Methodist Hymnal in public worship. 3 s.h. Hanks
- **182.** Chapel Choir. Students who successfully complete CW 180 before graduation may qualify for credit of one-half s.h. for each semester of effective participation in the Chapel Choir up to a limit of 2 s.h. Choir membership, granted by audition, affords opportunity for study of the history and background of church music and practical consideration of it in the context of public worship. *Hanks*
- **184.** New Forms of Worship. Workshop in corporate worship as central in the liturgical life of the Church, and of both traditional and innovative means of communication, celebration, and witness, through shared experiences in in multimedia center, field visits, and mini-workshops with resource persons in the various media. 3 s.h. Rudin and Others

V. Field Education Projects, Clinical Training, and Internships

FIELD EDUCATION PROJECTS

Each project involves the quality of preparation and participation commensurate with one semester hour of academic credit. Participation in any project must have the approval of the supervising professor and the Office of Field Education before work is begun. Registration for projects must be at the time of regular Divinity School registration, though work on the project may extend over varying lengths of time. A student may receive credit for a maximum of three projects during his seminary career. Projects in other areas may be proposed by professors or students for consideration by the Field Education Committee.

195. A, B, C, D, E, F, G. Field Education Projects.

A. Pastoral Psychology Practicum. Small group seminar to explore personal and professional identity and role performance based on written reports of field encounters. Enrollment limited to students currently engaged in field work situations with separate seminars for student pastors and student assistants. 1 s.h. Staff

- B. Community Studies. Planning and execution of a community religious census, church and community survey, or field research study in consultation with the faculty supervisor. Includes background reading, planning sessions, use of volunteer help where needed, tabulation, interpretation, and overall evaluation. 1 s.h. Staff
- C. Leadership Training. Preparation, teaching, and evaluation of a leadership training course under faculty supervision in collaboration with denominational boards of education. Can be taught in any field location approved by faculty supervisor. 1 s.h. Staff
- D. Christian Education. Supervised experience in various areas of educational leadership in the local church. 1 s.h. Westerhoff and Staff
- E. Research in Experimental Ministries. Assembling data and preparing papers for the use of groups engaged in specialized urban ministries. 1 s.h. Ingram and Staff

- F. Community Center Practicum. Seminar to assist students to integrate work and learning experiences in a community center and to develop a vocational style which displays special relevance for ministry in an inner-city neighborhood. Enrollment limited to those currently engaged in community center experiences. 1 s.h. H. Smith and Staff
- G. Worship and Preaching Practicum. Designed to assist student pastors in the week-by-week work of sermon preparation and presentation. 1 s.h. Bergland

CLINICAL TRAINING IN PASTORAL PSYCHOLOGY

Students may earn up to four credits for a quarter or unit of Clinical Pastoral Education (six credits for an internship year) in programs accredited by the Association for Clinical Pastoral Education (ACPE).

Students involved in clinical training under the direct supervision of members of the Pastoral Psychology staff during the academic year should register for credit under PP 277 for four semester hours of credit. Students should apply for such training through the Director of Programs in Pastoral Psychology.

Students involved in clinical training in summer CPE quarters should register with ACPE and the Director of Programs in Pastoral Psychology as soon as accepted for training by a chaplain supervisor. Upon the receipt of a supervisor's report at the end of the training period the student will receive four hours of transfer credit.

INTERNSHIPS

Students may qualify for an internship when they have satisfactorily completed two full years of the Master of Divinity curriculum and are registered as a student in good standing in the Divinity School. In consultation with the Director of Field Education and a faculty adviser, an individually designed internship may be developed in a particular ministry vocational area of interest. Six semester hours will be given for an approved internship. Prior plans must be developed with the Director of Field Education and properly registered in the registrar's office before credit can be applied.

- 125-126. Special Ministry Internship. When a student needs to develop professional competencies in a highly specialized form of ministry, the Director of Field Education will assist in designing an appropriate learning contract and in negotiating for a suitable placement setting, provided the arrangements meet the basic criteria approved by the Field Education Committee.
- 131-132. Ministry Through Social Agency Internship. A twelve-month placement in a regular personnel position in a social service agency to meet the job description of the agency and to develop a personal mode and style of ministry in a secular setting through understanding, appreciation, involvement in, and critical theological reflection upon environment, structures, values, and decision-making processes as conveyed by the conduct of the agency.
- 137-138. Parish Ministry Internship. A twelve-month placement, individually designed to engage the student in specified learnings in a wide variety of ministry functions in a local parish, under qualified supervision and using the guidelines of a learning contract.
- **143-144.** Campus Ministry Internship. A nine to twelve-month placement in approved locations designed to provide special learnings in delivering a min-

istry to college students under qualified guidance and utilizing a learning contract which specifies seminars, a personnel journal, directed readings, and consultations to develop competency in these functions.

175-176. Clinical Pastoral Education. A twelve-month placement in a clinical program accredited by the Association for Clinical Pastoral Education (ACPE).

197-198. Mission Internships. A special internship to prepare for service in Church Missions may be arranged by enlisting in the National or Overseas program of the United Methodist Board of Global Ministries for one to three years. As a requirement for agency planning, applications should be initiated in the fall of the middler year. Other denominational and/or work-study experiences abroad may be given field education credit by special arrangement with the Director of Field Education.

Other types of internship settings may be negotiated in consultation with and by approval of the Director of Field Education.

Department of Religion—Graduate Courses

The following courses are offered periodically in the Graduate Department of Religion by Department of Religion faculty and may be taken by Divinity students with permission of the instructor.

- 217. Islam in India
- 218. Religion in Japan
- 228. The Theology of the Gospel and Epistles of John
- 230. The Meaning of Religious Language
- 231. Seminar in Christianity and Contemporary Thought
- 232. Religion and Literature: Perspectives and Methods
- 233. Modern Narrative and Religious Language
- 244. The Archaeology of Palestine in Hellenistic-Roman Times
- 248. The Theology of Karl Barth
- 249. The Church in Contemporary Theology
- 280. The History of Religions
- 281. Phenomenology and Religion
- 282. Myth and Ritual
- 283. Religions of East Asia
- 284. The Religion and History of Islam
- 285. The Vedic Tradition
- 287. The Scriptures of Asia
- 288. Buddhist Thought and Practice
- 289. World Religions and Social Change 293. Sociological Analysis of Religion
- 294. Institutional Analysis of Religious Bodies
- 295. Ethics and Economic Life
- 361. Language and Biblical Criticism
- 380. Existentialist Inought

Appendix

ENROLLMENT SUMMARY

Spring Semester, 1975

Divinity School Students, total 302
278 M.Div. (218 Men, 60 Women)
3 M.R.E. (1 Man, 2 Women)
8 Th.M. (7 Men, 1 Woman)
13 Special Students (5 Men, 8 Women)

Graduate Division of Religion Students, total 43 3 M.A. 40 Ph.D.

Total: 345 students

DENOMINATIONS REPRESENTED 1974-75*

| United Methodist | 196 | United Holy Church of America | 2 |
|----------------------------------|-----|-------------------------------------|---|
| Episcopal | 16 | Advent Christian Church | 1 |
| Southern Baptist | 12 | Assemblies of God | 1 |
| United Presbyterian | 10 | Congregational | 1 |
| Baptist | 9 | Church of Christ | 1 |
| Presbyterian Church, U.S. | 9 | Church of Scotland | 1 |
| United Church of Christ | 9 | Korean Methodist | 1 |
| African Methodist Episcopal Zion | 4 | Moravian | 1 |
| Christian Methodist Episcopal | 4 | Methodist, Australia | 1 |
| Disciples of Christ | 3 | Pentecostal Assemblies of the World | 1 |
| Lutheran | 2 | Pentecostal Holiness | 1 |
| Roman Catholic | 2 | | |

GEOGRAPHICAL DISTRIBUTION 1974-75*

| North Carolina | 119 | New Jersey | 3 |
|------------------|-----|--------------------|---|
| Virginia | 23 | New York | 3 |
| Florida | 15 | California | 2 |
| Alabama | 14 | Connecticut | 2 |
| Pennsylvania | 14 | Indiana | 2 |
| South Carolina | 11 | Oklahoma | 2 |
| Georgia | 9 | Tennessee | 2 |
| Ohio | 9 | Vermont | 2 |
| Texas | 7 | Wisconsin | 2 |
| West Virginia | 7 | Arizona | 1 |
| Maryland | 5 | Delaware | 1 |
| Minnesota | 5 | Iowa | 1 |
| Arkansas | 4 | Michigan | 1 |
| Washington, D.C. | 4 | Mississippi | 1 |
| Illinois | 4 | Oregon | 1 |
| Kentucky | 4 | South Dakota | 1 |
| Massachusetts | 4 | Foreign: Australia | 1 |
| Missouri | 4 | Japan | 1 |
| Kansas | 3 | Korea | 1 |
| Louisiana | 3 | Scotland | 1 |
| Maine | 3 | | |

DEGREES CONFERRED AT COMMENCEMENT, 1974

Master of Divinity

Michael Lee Aiken Archie Brian Aitcheson

^{*}The statistics do not include students of the Graduate Division of Religion.

Arthur Lewis Allen Nancy Lee Shepherd Allen James Robert Bailes Burvin Lee Baucom Albert George Blomquist Lawrence Ray Bolick William Edward Braswell Alton Theoran Brown Darrell Richard Brown Michael Bruce Brown Leonard Cecil Byers, II Kenneth Wayne Chalker Lynn Francis Chappell Benjamin Carl Clodfelter Michael J. Coyner Sue Ann Culbertson Charles Thomas Davis John L. Farthing Robert Clark Flynn Joseph Wayne Forbes James Badger Godwin, Sr. William Neil Grosch John Michael Pauline Guest Donald Francis Gum Edward Marvin Gunter James Howard Harris, Jr. Philip Loyce Hathcock James Barney Hawkins, IV Ronald Bruce Hawkins John Geo. Herring Sherrill R. Holland, III Herbert Lawrence Isenberg Carl Scott Johnson

Steven Hillary Jones Schaefer Bryant Kendrick, Jr. James Keith Kennedy Clinton W. Kersey, Jr. Don Paul Lee James C. Lee Carol Miller Lipscomb Charles Franklin Long, II Elbert Garrett Martin Dwight Lynn McCall Charles Edward Medlin Steven Douglas Morgan Darrell Eugene Mount Forrest Clark Poole Daniel Nelson Powell Allen Clyde Ridenour William Cullens Robinson Gordon William Ruggles Steve Rutherford Welton Ollie Seal, Ir. Donald Lee Shuman James Lester Summey Susan Brooks Thistlethwaite Jeffrey Thomas Timm David Ralph Treat Jerry Roscoe Turner William Clair Turner, Jr. Larry Allen Walker S. Arthur Webb Ellwood Holler Wiggins Gladys Ruth Williford Linda Cathey Wingard

Master of Religious Education

Doris Claire Blackwell Harris John Narayanrao Robert Gary Strickland Chakkittadath O. Vargis

Master of Theology

Barry Keay Durie Richard Frederick McCleery Donald Hayse Roberts W. Stephen Sabom

INSTITUTIONS REPRESENTED

| Adrian College | Campbell College |
|--|----------------------------------|
| Albright College1 | Catawba College |
| Appalachian State University1 | Chicago Theological Seminary1 |
| Arkansas Agricultural and | The Citadel1 |
| Mechanical College1 | Claflin College1 |
| Athens College1 | College of Idaho1 |
| Atlantic Christian College3 | College of the City of New York1 |
| Averett College1 | College of William and Mary5 |
| Barber Scotia College1 | College of Wooster2 |
| Baylor University2 | Columbia Theological Seminary1 |
| Beloit College1 | Davidson College2 |
| Bennett College | Delaware State College1 |
| Berea College1 | Dickinson College1 |
| Birmingham-Southern College2 | Drury College1 |
| Bluefield State College1 | Duke University29 |
| Butler University1 | East Carolina University1 |
| California State College at Dominquez Hills .1 | East Tennessee State University1 |
| Calvin College1 | Eckerd College2 |
| | |

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|--|--|
| Elon College4 | Ohio Wesleyan University1 |
| Emmanuel College1 | Oklahoma University1 |
| Fairmont State College | Otterbein College1 |
| Fayetteville State University1 | Pembroke State University5 |
| Federal City College1 | Pennsylvania State University2 |
| Florida Southern College2 | Pfeiffer College11 |
| | |
| Florida State College | Portland State University |
| Florida State University | Prescott College |
| Franklin and Marshall College1 | Randolph-Macon College2 |
| Furman University2 | Randolph-Macon Woman's College1 |
| Georgetown College1 | St. Andrews Presbyterian College1 |
| Georgia Southern College2 | Scarritt College1 |
| Gettysburg College | Simpson College1 |
| Greensboro College3 | Smith College |
| Guilford College2 | State College of Arkansas1 |
| Gustavus Adolphus College1 | Syracuse University1 |
| Hamline University4 | Talladega College1 |
| | |
| Hampton Institute | Tennessee State University |
| Harvard University1 | Tennessee Technological University1 |
| Hendrix College1 | Trinity College1 |
| High Point College9 | Union College6 |
| Hiram College4 | University of Alabama4 |
| Howard Payne College | University of Arizona1 |
| Huntingdon College5 | University of Chicago1 |
| Illinois State University1 | University of Colorado1 |
| Indiana State College1 | University of Edinburgh |
| Indiana University3 | University of Evansville |
| | University of Florida |
| Iowa State University | |
| Johnson C. Smith University2 | University of Kentucky2 |
| Kansas State University1 | University of Massachusetts1 |
| LaGrange College1 | University of Miami1 |
| Lambuth College1 | University of Michigan1 |
| Lebanon Valley College1 | University of Missouri1 |
| Limestone College1 | University of Montevallo1 |
| Livingstone College2 | University of North Carolina at Chapel Hill 17 |
| Macalester College | University of North Carolina at Charlotte1 |
| Maine Maritime Academy1 | University of North Carolina at Greensboro .5 |
| Mars Hill College4 | University of North Carolina at Wilmington .3 |
| | |
| Maryville College | University of Richmond |
| Mary Washington College1 | University of South Florida |
| McMurray College1 | University of South Carolina2 |
| Melbourne College of Divinity1 | University of Southern Mississippi1 |
| Meredith College1 | University of Southwestern Louisiana2 |
| Methodist College7 | University of Tennessee3 |
| Methodist Theological Seminary1 | University of Tennessee at Chattanooga2 |
| Midwestern Baptist Theological Seminary1 | University of Texas at Austin1 |
| Miles College1 | University of Vermont |
| Mississippi State University1 | University of Virginia2 |
| Morningside College1 | Virginia Commonwealth University1 |
| Muskingum College | Virginia State College1 |
| Newborny College | Virginia State Confege |
| Newberry College | Virginia Theological Seminary |
| North Carolina A & T State University2 | Virginia Wesleyan College |
| North Carolina Central University2 | Wake Forest University5 |
| North Carolina State University2 | Washington and Lee University1 |
| North Carolina Wesleyan College17 | West Virginia State College1 |
| North Texas State University1 | West Virginia University3 |
| Northeast Louisiana University1 | West Virginia Wesleyan College4 |
| Northeast Missouri State College1 | Wheaton College2 |
| Oberlin College | William Jewell College1 |
| Ohio State University2 | Wofford College5 |
| • | |

Candidates for the Master of Divinity Degree

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Mitchem, Dick Williams (A.B., Pfeiffer College), Richfield, North Carolina Monroe, Kenneth (B.A., Livingstone College), Red Springs, North Carolina

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Nunn, Madelon Elizabeth (B.A., Mary Washington College), Richmond, Virginia

Ogren, Mark Victor (B.S., Iowa State University), Ottumwa, Iowa

O'Keef, Robert David (B.A., North Carolina Wesleyan College), Sanford, North Carolina Old, Marshall Roy (B.A., North Carolina Wesleyan College), Moyock, North Carolina

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Pietila, Thomas Carl (B.A., Hiram College), Mentor, Ohio

Plummer, Charles Mark (A.B., University of North Carolina at Chapel Hill), China Grove, North Carolina

Presnell, William Michael (B.A., Methodist College), Snow Camp, North Carolina *Privette, William Edward (B.A., Atlantic Christian College), Mebane, North Carolina Putnam, Rendal Clayton (A.B., Wheaton College), Greensboro, North Carolina

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Rainey, Steven Knight (B.A., Wake Forest University), Lexington, North Carolina Reddick, Lawrence Lewis, III (B.A., Ohio Wesleyan University), Huntsville, Alabama

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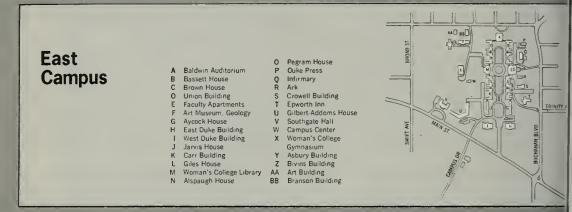
Shmidheiser, Alexa Kempson (B.A., Duke University), Pensacola, Florida

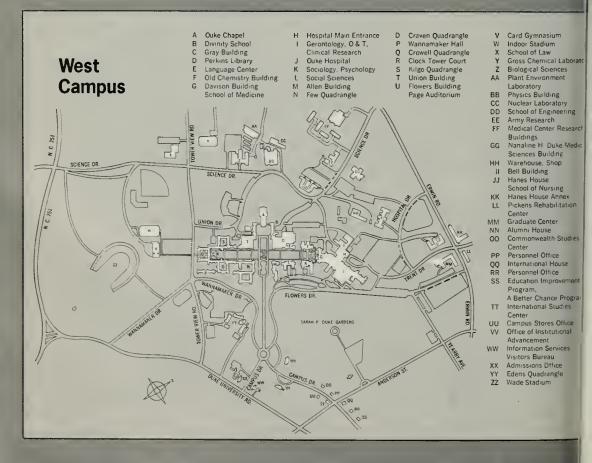
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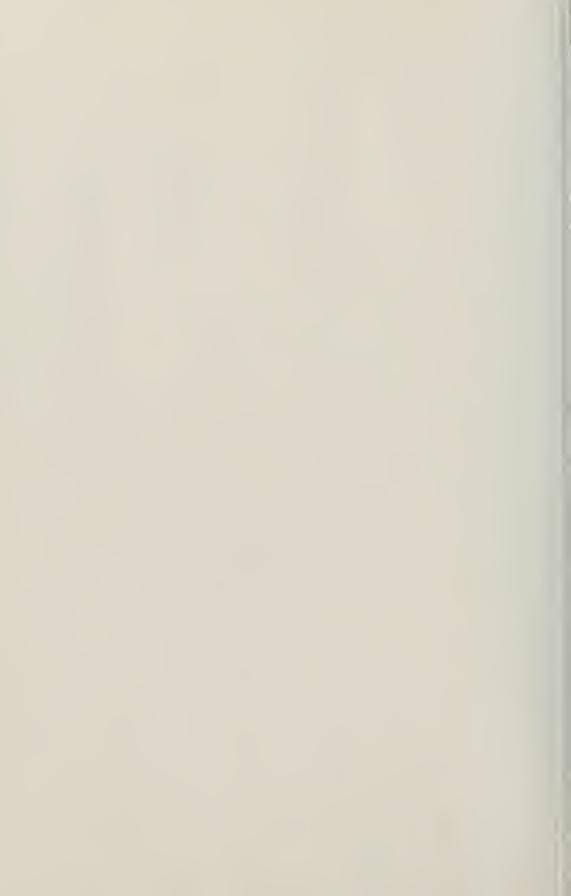












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